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QALA'AT HALWANJI (NORTHWESTERN SYRIA), 2008-2009*

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Abstract

This and two following articles outline results of the joint Syrian-Danish studies carried out at the site of Qala'at Halwanji (mohafazat of Aleppo) in 2008 and 2009. Qala'at Halwanji is located on the south bank of the Sajour River ca. 15 km west of the Euphrates junction at Aushariye. The site lies on a limestone cliff, and appears as a roughly square, fortified enclosure with wide ramparts, on two sides broken by gullies which could represent ancient gates. The surface survey and sondages carried out show that the site was first occupied in the Early Bronze Age IV, but its main level, immediately under the modern surface, represents a brief Middle Bronze Age II occupation destroyed by fire. Excavated rooms in the well-preserved southern and south-western parts of the site contain numerous in situ ceramic vessels and specimens of remarkable sealings. During this period Qala'at Halwanji seems likely to represent imposition on the local region by a regional or international power. An identification with ancient Dūr-Šamšī-Adad, a fortress established in this region by Šamšī-Adad I ca. 1786 BC, and lost to Jamhad ca. 1779 BC, although far from assured, is a possibility.

GENERAL INTRODUCTION

Location and topography

Qala'at Halwanji (Fig. 1) lies high on a cliff on the right (south) bank of the Sajour, ca. 5 km upstream from the village of Dadate, and ca. 15 km upstream from Aushariye at the Euphrates junction. Opposite, on the left (north) bank of the Sajour, is the village of Halwanji and *Tell* Halwanji, located ca. 1.5 km west of the village. This latter site was recorded by a French team in their 1979 survey of the Sajour Valley (Sanlaville 1985). It is fairly low and elongated and has major deposits of EB and MB date.[1]

The *qala'at*, on the other hand, seems to have escaped attention of the 1979 survey, and was apparently first identified as an ancient site in June 2007 (Eidem 2008a, 2008b). The French survey did inventory Palaeolithic flint scatters, labelled 'H(alwanji) I-VI', in the vicinity (Copeland 2004), but apparently not at the *qala'at* itself, where similar material,

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[1] Sanlaville 1985: 74 (Site no. 33). To the periods given there (EBA I-III and MBA) can be added Iron Age (cf. ibid., Fig. 11 (p. 148): 23).

however, is abundant. The site is located on top of an almost square limestone cliff and measures ca. 200 x 200 m (Fig. 2 and 3)[2]. Two gullies, one in the south perimeter near the southwest corner, and another, roughly in the centre of the east perimeter, could represent ancient gates (Fig. 4). The interior of the site slopes considerably towards the centre, and it seems likely that this is a depression in the original cliff formation. The ca. 4 hectare expanse on top of Qala'at Halwanji has in recent decades been cultivated by local farmers, and ploughing has inevitably done some damage to the upper layer. A good deal of mostly small robber pits are found in the cliff flanks of the site, and appear to represent frustrated efforts to discover ancient graves.

An interesting feature, and an obvious target for future investigation, is a peculiar conical hill outside – and close to the southeast corner of the site (Fig. 5). It has no sherds on the surface, but seems too regular to be natural, and could possibly be a feature comparable to the so-called "White Monument" (Tell Banat North) in the Banat settlement cluster (McClellan 1998).

Surface collection

Intensive collection of surface material was carried out 2008 in forty 20 x 20 m squares across the site, covering 1.6 hectares (ca. 1/3 of the site). The collected material has been studied in two MA theses (Weideman 2011, Nymark Jensen 2011), and will be published separately, but a brief summary can be given.

Sherds collected total 12,799, of which 2,828 have diagnostic features. Most of the sherds are of MB II date, but the material also includes a number of EB IV types (Weideman 2011).

Small finds on the surface of Qala'at Halwanji are in general few, and include only fragments of basalt grinders, and the few figurine fragments presented in a separate article. Traces of presumably transient post-MB activity are scarce, and include a Late Roman (fourth century AD) coin, a few glazed sherds, possibly recent, and an Ottoman pipe fragment.

Much older material is heavily represented by a mass of Palaeolithic flints, concentrated in the low central part of the site, mixed with medium to large pebbles. As part of the survey a total of 4,419 pieces were collected. Typo-technologically the flint assemblage is Middle Palaeolithic with a ca. 10% component of Levallois cores and some points. The vast majority of the assemblage, however, is technologically unprepared cores and flakes arguably attributable to almost any part of the earlier Palaeolithic. No hand axes were identified and unequivocal retouched flakes (or tools) are few. The Qala'at Halwanji terrace thus resembles a number of similarly identified raw material procurement or factory sites in the Sajour valley (Nymark Jensen 2011).

[2] It should be noted that the map/grid deviates ca. 45 degrees west from magnetic north in order to fit the layout of the site. Currently available Google Earth imagery (from September 2009) shows the site with the 2008-2009 sondages visible.

SONDAGES

Overview

A total of 21 small sondages were opened in 2008-2009. 16 of the sondages were 4.5 x 2 m, 4 (S.11, S.13, S.16, and S.19) 4.5 x 4.5 m, and S.21 9 x 2 m. Thus 243 m square of the site has been sampled to date. All the sondages, except Nos. 7, 9, and 17-18 on the west slope, were laid out with the long side north-south. These small operations were intended to test the situation in various parts of the site in preparation for larger exposures in future seasons. It follows that the structural information retrieved is fragmentary and includes features which only can be properly understood when excavation areas are expanded.

The overview emerging from both survey and sondages is that the site is partly heavily eroded, partly has excellent preservation. The latter situation is found on the southwest part of the site, where especially sondages S.01, S.11, S.12, S.16, S.19, all close to the southwest corner and the presumed "gate" in this area, produced MB II walls still standing to considerable height. Preservation then diminishes moving east and northwest, or towards the low-lying centre of the site. This situation is illustrated by the two sets of sondages excavated on the south and west inward slopes. In S.02-S.06, from the crest of the south rampart inwards, preservation is good on high ground, but then sharply diminishes towards the north, and the northernmost sondage (S.06) revealed virgin soil immediately below surface. Similarly on the west inward slope, where the sondages on fairly high ground (S.17-18, S.09) produced structural remains, but the lower operation (S.07) exposed virgin soil immediately below the modern plough. The sondages (S.08 and S.15) carried out on the west and east corners of the northern rampart produced only shallow stone foundations, and it seems likely that this is indicative of the entire north slope. The very eroded east part of the site has not been tested, but seems unlikely to preserve any substantial cultural remains. The east "gate" area is also heavily eroded, and the deep gully here is probably more likely the result of natural draining and erosion than traces of an original gate.

It is of course impossible to estimate how much ancient structure is lost to erosion, but it seems likely that the most substantial built structures, at least in the MB II period, were actually situated on – or near the edges/ramparts and in the southwest part of the site, while the central part may have been largely empty and/or used for *bivouacking*.

The MB II remains, where preserved, are encountered immediately below the surface, and are in all sondages heavily burnt, leaving substantial material *in situ*. In several of the sondages large amounts of ceramic vessels, the larger crushed by collapsed walls, were found. It has not yet been possible to reconstruct all of these specimens, many only partially retrievable within the very small sondages. Enough material is documented, however, to confirm the presumed date of the main occupation of the site to the mature MB period, quite likely within the first half of the eighteenth century BC (Middle Chronology).

EB IV remains

As mentioned above surface sherdage reveals EB IV occupation, and where excavation penetrated below the burnt MB floors or surfaces fill or foundations with associated EB IV ceramics were encountered. Mud-brick foundations cut by MB structures were exposed in S.20, S.03, and S.10 on the south ridge. In S.18 and S.09 on the west slope, where the upper, MB II level was fairly shallow, disturbed stone structures with broken EB IV ceramics (Pl. 10: 64-68[3]) were found below floor level. In S.08 and S.15 on the north-western slope we encountered two sets of stone foundations in different alignments, and the earlier set is presumably of EB IV date. The extent or nature of this early occupation cannot be realistically estimated at present. Unfortunately it seems heavily eroded, but may possibly prove better preserved in the southwest corner of the site. It is interesting that the cliff at Halwanji experienced two brief episodes of occupation, several centuries apart, and it seems possible that both occupations may have been connected with international(?) politico-military scenarios.

The Ramparts and "Barracks"

Sondages on the edges of the site, through the crests of the presumed ramparts, revealed significant structural remains, but not enough evidence to provide a clear reconstruction of the ancient defences. Larger exposures and geo-physical surveys will no doubt remedy this situation, and allow a both comprehensive and detailed overview. Meanwhile, however, extant evidence may be reviewed, and some provisional conclusions offered.

In the areas of both S.12/16/20 and S.02-3/14, on the south ridge, were two parallel brick walls ca. 1.6 m wide (4 bricks) ca. 3 m apart. A similar set of walls, but 6 m apart, was excavated in S.09/17-18 on the east ridge. The plan Fig. 6 shows the location of these walls and their potential extension beyond the sondages. Walls in the three areas mentioned may connect with remains in S.10 and the upper stone foundations found in S.08 and S.15 on the north ridge. A perimeter reconstructed from this admittedly modest evidence would thus basically follow the modern contours, but describe a surprising curve around the south ridge. The walls excavated in the southwest corner (S.01/11/13/19) seem to belong to a separate structure, which we have dubbed "The Governor's Palace" (see below, p. 7). Possibly outer walls of this building formed the perimeter in the southwest corner of the site, but this is of course not certain.

Inside the presumed perimeter walls, in S.16, S.03-4/5, and S.09, were room/spaces with domestic installations, which we provisionally refer to as the "Barracks".

[3] Pottery plates: see M. Al-Maqdissi's "Notice sur la poterie" in this issue, pp. 43-52.

South Perimeter

Sondages 2-3, 14. In S.02 (NE quarter of L/28) and S.03 (SE quarter of L/29), immediately below the modern surface, were two parallel mud brick walls, ca 1.6 m wide, made of grey bricks laid with reddish mortar, and running at a slight angle east-west through the sondages. The wall in S.03 was poorly preserved, but seems to have a doorway towards the east baulk. In the ca. 3 m wide space between the walls was fill with burnt debris, broken bricks, and sherds from a bowl (Pl. 3: 34). No convincing floor surface was retrieved, but a clear change of fill to unburnt, gravelly soil marked the bottom of the wall. Further excavation of the space between the walls showed the foundation to consist of 4 further brick-courses on limestones.

In S.14 (SE quarter of L/28) was a layer of wall collapse covering a clayey surface with patches of pebbles, and beyond that a massive stone/rubble layer, which may be part of an original glacis extending from the enceinte.

In S.03, north of the presumed rampart wall, a small slot of a floor surface with sherds from broken vessels and some stone tools, was exposed.

Sondage 4. Situated in the south-eastern corner of L/31, and some 5 m north of S.03, the south end preserved almost completely eroded stone footings of a small room with fragments of *in situ* vessels (Pl. 7: 54) on a floor surface. The north part of the sondage was dug some 70 cm below this level into virtually sterile fill without exposing further structures, and seems to lie beyond an erosion edge.

Sondage 5. Situated in the south-eastern corner of L/32, some 15 m north of S.04, preserved the west part of a room, with walls north, west, and south parallel to – and protruding from the baulks. Walls were preserved only as shallow stone footings with traces of mud bricks still intact only on the western wall. In the south-western corner of the sondage was an original doorway into the room. On the floor of the room was a large number of crushed *in situ* MB II vessels and some stone tools. Although no clear separation could be established, the impression was that the broken ceramics, close to the modern surface and disturbed or compressed, perhaps represent two phases (cf. S.01, S.16), of which the older is here represented by Pl. 1: 17, 3: 30 and 36, 8: 56, 9: 61, and the younger by Pl. 1: 7 and 18, 7: 55. Given the topography of the site it is reasonable to assume that a terrace edge lies between S.04 and S.05.

Sondage 6. Situated in the south-eastern corner of M/34, some 15 m north of S.05, produced a layer of pebbles on bedrock under the plough, and was soon discontinued. Among the few sherds in topsoil was the torso of a conical cup (Pl. 1: 9), possibly displaced from higher ground.

Sondage 12. Situated in the north-eastern corner of H/29 (4.5 x 2 m), to the east of the south "Gate". Immediately under surface appeared heavily burnt mud brick walls, forming a corner of a room. The walls, preserved to a height of ca. 2.5 m, were at a slight angle to – and extending from the north, east, and south baulks, and with a doorway, originally arched, in the north wall. In heavily burnt ashy fill near the floor were the crushed remains of a medium-sized krater (Pl. 8: 59) and an almost complete carinated cup (Pl. 1: 16). Further down in the fill was another, complete carinated cup (Pl. 1: 12). Cleaning of the floor revealed a plaster line extending through the sondage close to its

west baulk. Further excavation showed that the floor was atop a heavily plastered feature extending from the doorway to the south wall opposite (Fig. 10). Since the sondage was not further extended the nature of this feature remains uncertain. Possibly it represents the top of stairs, and the proximity of the sondage to the south "Gate" may be relevant.

Sondage 20 (in H/29, 4.5 x 2 m) showed that the south wall of the room in Sondage 12 was 1.6 m thick. Outside the wall was a succession of pebbled surfaces extending to the south end of the trench. Removal of these surfaces revealed the foundations of the MB enceinte, cutting an earlier perpendicular wall of presumed EB IV date (Fig. 8).

Sondage 16 (SE quadrant of H/30, 4.5 x 4.5 m) (Fig. 11) was laid out to the north of Sondage 12 and exposed part of an apparently unroofed room/courtyard which could be accessed from the door of the room in S.12. Similar to all other MB exposures this also showed signs of heavy burning and had materials *in situ*. To the west of the doorway was a large storage jar slightly embedded in the floor, and close to it were found four perforated clay weights (Fig. 12), probably originally attached to a piece of cloth which covered the opening of the jar. Further west of the doorway was a platform or bench in the south-western corner of the room. A peculiar feature of the platform is a dressed limestone "column", square in section, which was placed upright on the platform in the very corner of the room. Possibly it was intended to protect the corner of the wall against damage from work processes on the platform.

On the floor of the room was a number of crushed ceramic vessels. Among these were 4 conical cups (Pl. 1: 6, 14, 19, 20 (Fig. 13), a small bottle (Pl. 2: 22; Fig. 15), and a medium-sized jar (Pl. 6: 49). A carinated bowl (QH.1307/5; Fig. 14) has two sets of eleven finger nail impressions below the rim, made prior to firing, a feature not easily explained. The two sets of impressions are horizontal and vertical respectively, and perhaps part of a notational system, but further examples are needed to elucidate this.

A sondage below the floor in the north-western corner of the room revealed a slightly earlier MB phase (Pl. 2: 21, 3: 29, 4: 41), and well below that a possible surface from the EB IV level.

Sondage 10 (NE corner of Q/29) (Fig. 7) revealed brick foundations on a shallow layer of limestones extending obliquely from the south baulk, and thus describing a direction southwest-northeast. The size of the bricks supports the assumption that this foundation dates to the MB II Level I, and its cuts an earlier foundation, presumably of Level II, which forms a corner in the trench, extending from – and almost parallel with the west and north baulks. The apparent change in orientation of the MB II structures is interesting and slightly surprising, and will require further investigation.

North ridge

Sondage 8 (NE corner of E/50) and Sondage 15 (SW corner of V/50), respectively on the north-western and north-eastern corners of the site, exposed only shallow stone foundations of two superimposed levels. It may therefore with some confidence be concluded that the entire north ridge of the site unfortunately is eroded below floor levels, and does not merit extended excavation. In both sondages main features were shallow

stone footings running east-west and ca. 1-1.2 m thick, and thus comparable to presumed MB rampart walls on the west and south ridges. Lower footings were less clear, but associated with EB sherds.

West ridge

Sondages 17-18 (9 x 2 m in N end of B/39) extends S.09 to the west edge of the site, and revealed a 1.6 m wide (4 bricks) wall and 6 m further east the west edge of a wall exposed in S.09 in 2008. Both walls seem preserved only in foundation and a few courses high. The 6 m space between them contained mixed material with unclear, disturbed scatters of limestones, and the largest group of EB IV sherds found as yet (Pl. 10: 65-68; Fig. 9).

Sondage 9 (NW corner of D/40). The room/space in S.09 is situated immediately east of the west rampart wall, and the inner edge of this is within the trench. Attached to the wall and extending from north baulk was a podium or bench. In the east end of trench were remains of 2 *tannur* ovens, which indicate an unroofed space or courtyard, a supposition also supported by the lack of burnt roofing material in the fill.

A large number of ceramic vessels were found in soft ashy fill near – or on the floor, which was exposed max. ca. 70 cm below the modern surface. Several vessels were partly beyond the edges of the sondage or partly removed by surface denudation, and can therefore not be fully restored. The retrieved inventory include: In the west part of trench 3 fairly complete cups Pl. 1: 1, 13, 15), 2 jugs (Pl. 2: 24, 25), a 'Pilgerflasche' with incised pot mark (Pl. 3: 28) near the north baulk in the centre of the trench, and next to it a crushed vat (40 cm rim diameter), and large base fragments from 2 cups (Pl. 1: 10-11). In the east part were remains of probably 3 different cooking pots (Pl. 9: 60) near the *tannur* ovens, and another vat (Pl. 8: 58).

A sondage under the floor in the west part exposed an irregular and unclear layer of limestone pieces, and some EB material, including a complete 'Hama' beaker (Pl. 10: 64).

Sondage 7. Situated in the north-western corner of E/39, produced only a layer of medium-sized pebbles above bedrock, and was soon discontinued.

The "Governor's Palace"

The southwest corner of the site was in 2008 explored in S.01 and S.11, which exposed corners of well-preserved and burnt rooms with ceramic *in situ* materials and some remarkable sealings. We suspected that this area was the site of the main building of the MB settlement, and to confirm this three new sondages were opened here in 2009. S.13 west of S.11, and S.19 between S.01 and S.11, both exposing parts of similar rooms. Both S.13 and S.19 were 4.5 x 4.5 m and exposed single walls extending from one baulk, and thus seem placed in quite large rooms. All rooms in this area were roofed. Large amounts of charcoal and remains of charred roof poles were found between a thick layer of wall collapse and the floor, and crushed vessels from a roof or second storey were found above and within the charcoal layer. A final S.21 (in C/32, 9 x 2 m) was opened north of S.11, but could not be excavated to floor level. Removal of brick collapse with

inclusion of charred pieces of wood to a depth of ca. 1 m exposed no clear wall, indicating that this sondage may be within a fairly large room.

The exposed walls in these sondages are all parallel to the grid, and made of similar, grey bricks (34 x 34 x 14 cm; thus smaller, but thicker than bricks in the EB foundations exposed) as the MB rampart sections excavated. Assuming, as seems reasonable, that the south-western corner of site was occupied by a single, large building, we can estimate that this may cover an area of ca. 50 x 50 m = 2,500 m square, thus equal to, e.g., the MB palace at Tell Bi'a/Tuttul (Strommenger and Miglus 2007). It is clearly premature, however, to speculate further on plan and layout of the building.

Sondage 1. Situated in the north-eastern corner of E/30 just west of the presumed south-western "Gate", S.01 was laid out immediately west of a robber hole with burnt, ashy debris and sherds from broken vessels, and in 2008 therefore seemed a promising place to obtain a first stratigraphic and chronological impression of the site. Mud brick walls parallel to, and protruding from the north and east baulks were exposed almost immediately under the surface, and revealed a corner of a room with a doorway east. Two small ceramic flasks, the best preserved 0505/1 (Pl. 2: 23), were found at a level ca. 70 cm below surface, where also pieces of burnt roof beams (diameter ca. 8-9 cm) and tops of larger storage jars began to appear, and there can be little doubt that these small vessels had fallen from a roof or second storey. Further excavation revealed remains of four medium-sized, one-handled jars (Pl. 4: 38-40, Pl. 6: 48), crushed on top of – or in one case (Pl. 3: 38) inside – large storage jars placed at floor-level, and presumably also fallen from an upper floor.

An original phase featured against the north wall a plastered platform with apertures at floor level (Fig. 16), similar to those found in Room 167 of the Mari Ville III palace (Parrot 1958: 24-26) and a similar installation recently excavated in room P of the eastern palace at Mishrifeh/Qatna, which is interpreted as a workshop for metal (Morandi Bonacossi et al. 2009: 70). Unlike these examples two large storage vessels (Pl. 6: 50; in northwest corner) were embedded in the S.01 platform. No animal bones or other indications of cooking activity were found in Sondage 1. The installation was left *in situ* and trench back-filled, but as far as could be ascertained the apertures do not provide access to the interior of the embedded jars, and possibly they were used to light small fires to keep the jars and their contents warm. The original floor in the room had been reused in a second phase where further installations were placed directly on top of crushed jars. One was in the north end of the room abutting the platform and blocking the apertures. The jars shown on Pl. 5: 43 and 45 were both found crushed under another phase 2 installation in the southwest corner of the trench.

Close to the eastern aperture of the early installation, mixed with pieces of charcoal, was a small group of burnt seal impressions. The three seal images represented by these impressions can be substantially reconstructed, and are described in more detail in section 3.3 below.

Sondage 11. Situated in the north-eastern corner of C/30 (4.5 x 4.5 m). A 1.6 m thick mud brick wall, parallel with the north-south axis of the sondage, was preserved immediately under the surface and to a depth of min. 2.88 m (23 courses of bricks

preserved). The wall bore clear traces of heavy burning. The small strip of floor reached to the east of this wall contained remains of two large storage jars (Pl. 6: 51-52) embedded in brick installations, and above these a mass of middle-sized jars and some bowls crushed by the collapse of burnt roof and walls. Fragments of more than 60 vessels were retrieved from a very small area, lying in a very porous layer extending into the east baulk (Pl. 3: 31-33, 35, 37, 4: 42, 9: 62. The vessels seem to have been empty and stacked along the wall for future use. Such a stack of jars is reminiscent of one in Salle 162 of the Mari Ville III palace (Parrot 1958: 31f.).

The area west of the wall was excavated to a depth of only ca. 50 cm to define properly the face of the wall. In the southwest corner of this space remains of a storage jar with ribbed rim was partly exposed, and it seems likely to have fallen from a roof or second storey.

Sondage 13. In the north-western quarter of B/30 (4.5 x 4.5 m), exposed a mud brick wall protruding from and parallel with the south baulk. An opening in this wall in the southeast corner of the sondage (not excavated to floor level) indicates a doorway of unusual height, ca. 3 m, and comparable to door openings preserved 2.6 and 3.35 m high in Salle 9 of the Mari palace (Parrot 1958: 214).

The west half of the sondage was excavated to floor level. Under some 1.5 m of sterile brick collapse was a layer with burnt wooden poles and several broken vessels fallen from the roof or a second storey (Fig. 17). One of the vessels, found near – and partly beyond – the west baulk, was a cooking pot (Pl. 9:63). Further excavation revealed part of a storage room with rows of large jars slightly embedded in the floor (Figs. 18-20). A total of 10 such vessels were wholly or partly within the exposure. An interesting feature of these vessels, which all have ribbed upper lips, is the presence of bands of burnt, highly calcareous clay preserved around their neck just below the rim. Presumably this clay served to hold a cloth cover in place. A sample from the soil in one jar contained only room fill, and presumably the jars once contained liquids, possibly wine, but this of course needs further investigation.

Sondage 19. Northeast quarter of D/30 (4.5 x 4.5 m). Immediately under surface appeared a mud brick wall protruding ca. 75 cm from and parallel with the north baulk. Consistent brick collapse south of this wall was removed to a depth of ca. 2 m below surface, at which level remains of crushed vessels from the roof/upper floor and heavily burnt debris appeared. The ‘room’ was divided into two loci, and only the western half excavated to floor level. A thick (ca. 70 cm) deposit of burnt fill with fragments of charred roof beams, charcoal pieces, and numerous burnt sherds covered the floor (Fig. 21). On the floor a concentration of crushed vessels was found in the north end of the locus close to the wall (Fig. 22). An interesting assemblage found here consists of four conical cups (Pl. 1: 2-5; Fig. 25), 5 trefoil jugs (Pl. 2: 26-27; Fig. 26), and three medium-sized jars (Pl. 5: 44, 46), all heavily burned, and smashed into many small pieces. Together with this pottery were two sealed clay caps (Figs. 23-24), described in more detail below (p. 12) and a small limestone lid, certainly once used to close the three jars found.

FINDS

Overview

Although exposures at Qala'at Halwanji are very limited, the amount of small finds retrieved is distinctly modest. Thus a pattern is emerging of a site thoroughly evacuated and/or looted prior to the extensive burning detected in all sondages. Masses of *in situ* ceramic vessels, mostly crushed by collapse, are left in the rooms, but to date we have not found, e.g., a single metal object. This situation certainly resembles that of contemporary MB sites like Mari and Tell Bi'a/Tuttul, which also produced, except important cuneiform archives, relatively few objects. At Halwanji we seem to face a similar situation, and so can expect to find predominantly items deemed worthless in antiquity, like household pottery and tools, but also sealings, and perhaps tablets.

Various small finds

Apart from the sealings described in detail below small finds in the sondages consisted almost exclusively of stone objects. Foremost limestone lids for storage jars, several found still on or near jars in the rooms: in S.01 four separate specimens were found, in S.04 two specimens, in S.05 three, in S.11 one, and in S.19 three. Complete examples are shaped, fairly roughly, like discs a few cms thick and with a diameter of ca. 35 cm. Several basalt pestles and grinders were found in S.03 and S.05, and in S.12 two basalt weights. It may also be noted that no figurines have appeared in the excavation, and the few fragments found on surface are all of EB date. Also – in spite of consistent sieving of room fills – no beads or other personal ornaments have yet turned up in the excavation. Tentatively this could be regarded as a reflection of the supposed military – as opposed to domestic – character of at least the MB settlement.

Sealings

The best finds from the 2008-2009 sondages are without doubt the sealing fragments from S.01, and the two sealed clay caps from S.19. The four different cylinder seals used to make these impressions were all of an exceptional high quality, and could well stem from the same workshop, presumably based in the North Syrian area, and clearly much influenced by classic Old Akkadian glyptic. They are all container sealings, and seem most likely to have accompanied goods sent from elsewhere. Since both Nos. 1 and 4 have already been studied separately, and studies of Nos. 2 and 3 are under way we provide here only some brief remarks.

Sealing QH-0508-1 (Fig. 27; cf. Eidem 2011a)

The two fragments (QH.0508-1a-b) possibly derive from the same sealing, but cannot be directly joined. The larger fragment measures 70 x 37 x 15 mm. The seal image can be almost completely reconstructed from the several rollings on the fragments. The seal had seven registers, each slightly convex on impressions, and hence was a rare heptagonal seal. The composite drawing Fig. 27 was made from photographs, and has not

been checked with the original objects now in the National Museum in Aleppo.[4] This, and indeed the possibility of finding further fragments with the same seal at Qala'at Halwanji, mean that details may be subject to later revision. The fragments represented by 0508-1 have marks on their reverse showing that they were attached to a reed package/bundle tied with a string (cf. Otto 2004: 115).

These sealings certainly represent one of the finest cylinder seals known from this period in Syria. The carving, in extreme miniature, is exquisite, and the richness and variety of subject matter without parallel. Although some of the registers may be purely emblematic it seems possible that they represent events related to a festival or similar in honour of the winged deity, possibly Ishara, in register 4 (on the drawing Fig. 27). The narrative scene in register 7 is another example of the slaying of Huwawa (Collon 2011).

Sealing QH-0508-2

This fragment is from the sealing of a small jar/bottle (46 x 42w x 18 mm). The seal image combines several elements: A table with eight rows, each with 2-3 human or animal heads/miniatures; a swirl of "water-heroes", next to two swirls of (4) lions, next to three sets of double birds.

The central element is the swirl of so-called "water-heroes", found on a number of contemporary Syrian seals, and on a kitchen mould from the Mari Ville III palace. The motif seems particularly linked with the region of Jamhad (Otto 2000, p. 243). In other examples the swirling heroes hold cups from which water gushes to encircle them in streams (Otto 2000, Pl. 26: 336, 337), sometimes depicted in guilloche pattern (*ibid*. 338, 339), but on our seal this association is limited to guilloche bands above and below the swirl. The horned cap of the upper, and best-preserved hero, is also found on a seal from Kültepe (*ibid*. 336). Several of the contemporary seals with water heroes also depict lions, and one notes a late third millennium seal from Ebla, where a "water hero" holds a swirl of lions' heads on his own head, apparently the closest parallel to the swirls of lions on our seal. The further combination with the two remaining elements on our seal are not paralelled, but they occur otherwise frequently. As with QH-0508-1 the carving is exquisite, and the seal may be considered another example of a high-class object.

Sealing QH-0508-3

Fragment of "languette"(?) (45 x 28 x 7 mm). Only the approximate upper half of the seal image is preserved, and shows a central group of three figures, the central one apparently flanked by connected guilloche ovals surrounding enclosed, unclear figures. The fragmentary state of this sealing precludes closer analysis, but again a fairly high-class seal seems involved.

4 The digital treatment of photos, however allowed magnification and identification of many details. The composite drawing was prepared with CAD software.

Sealing QH-1020-1 and 2 (Fig. 23-24; cf. Eidem 2011b)

The two clay caps found in Sondage 19 are conical covers which originally were used to seal the opening of a jar with a rim diameter of ca. 10 cm. They were supplied with rollings from a cylinder seal, from the broader base and across the pointed upper end to the opposite base. One specimen had two, the other three rollings made with the same seal. A small fragment from the top of a similar object and sealed with the same seal was found in fill in Sondage 13. Similar objects have been described from Tell Bi'a/Tuttul, where the sealings, however, were made on strips of finer clay ("Langetten") attached to the cap, itself made of coarser clay (Otto 2004, 111ff.).

The image is a presentation scene with the god (H)aya (a Syrian form of Ea/Enki; cf. Pomponio and Xella 1997, 168f.), enthroned on a lion-footed chair on a platform in a boat. He is approached by his double-faced vizier (in Mesopotamia known as Isimud), leading a supplicant king by the hand. Behind the god is a man punting the boat, which in both prow and stern is supplied with water gods joining as a stream under the boat. Next to this scene is a number of animal contest scenes involving lions, bulls, and a stag. Horizontal borders of guilloche bands frame the seal image. The closest parallels for the main scene are found in the so-called "Wasserwesen- und Flechtband-Gruppe" of Syrian MB cylinder seals as defined by Otto (2000). A Particularly close parallel is represented by seal on an envelope from Kültepe Level Ib (Özgüç 1968, Pl. XIc), and securely dated to 1776 BC (Middle Chronology) by *limmu*. With all due caution this provides the best dating evidence as yet for the MB level at Qala'at Halwanji, and places it with some confidence within the first half of the eighteenth century BC.

PERSPECTIVES

Both the seals and the pottery found at Qala'at Halwanji date the Middle Bronze Age occupation to a short period, probably within the first half of the eighteenth century BC. The fortified settlement was burned only a few years after it was built. What role did such a site play in this region? Who founded it and why? To answer such questions we must first take a brief look at the local region. The Sajour region in Syria was recently intensively surveyed by the "Land of Carchemish" project (Peltenburg et al. 2012). The new evidence shows a marked increase in settlement on the Sajour itself in the Middle Bronze Age (from seven to twenty sites). A possible background for this development could be the formation of a small local polity which offered relative security. A few kilometres upstream from Qala'at Halwanji is the probably most imposing site in the Sajour region, namely Arab Hassane[5]. This site has mainly Bronze Age levels and given its size and central position in the region it seems reasonable to suppose that it could have been the capital of local polities for periods in the third and second millennia BC.

So was the Middle Bronze Age fortress at Halwanji a new military capital for local ruler? Although an intriguing possibility it does not seem very likely. From Old

[5] Sanlaville 1985: 74.

Babylonian Mari we have an interesting model for rampart construction on an exercise tablet (Charpin 1993). The text contains calculations of the volumes of earth needed for each side of a rectangular rampart and the number of man-days necessary for the work. Unfortunately the text does not provide dimensions of the walled area or indeed a name of the place, and is clearly an abstract exercise. The calculations, however, are probably fairly realistic and given the quantities of earth calculated the model must have had dimensions fairly similar to Halwanji. Obviously the Mari text does not represent a model specifically for Halwanji, but perhaps it represents a sort of standard model for a medium-sized, fast-to-build fortification of this period, which we must anyway assume existed. A rampart of this type, according to the Mari text, demanded some 27,000 workdays – and so could be completed by, for instance, a workforce of a thousand men in just one month.

Even so such a project would in total represent a considerable investment and this plus the maintenance of a garrison force would no doubt have been beyond the resources available to a small local ruler. Who might then have founded MB Halwanji? Regarding the regional context it is clear that the site could be related to an episode in the history of Karchemish, located as it is, more or less where the south-western border of the kingdom may have been. In this perspective the fortress could have been intended to mark control in relation to another regional power, like Jamhad to the west, or a kingdom to the northwest, perhaps with its centre in modern Tilbeshar, located near Gaziantep in Turkey (Kepinski 2010). This site, which was almost 60 hectare large in the Middle Bronze Age, may be identical with ancient Haššum, mentioned, although infrequently, in the sources from Mari (Ziegler 2009, 201f.). These sources do not mention any direct confrontations between Karchemish and Haššum, but it seems logical that both kingdoms may have wanted to control as much of the fertile Sajour Valley as possible. Moving some 17 kms west of Halwanji we find Tell Algane[6], not on a cliff and therefore a fairly low site, but with a very similar size and shape. The site was occupied after the Middle Bronze period (LB/IA I), but has clear traces of MB II occupation. Are the two sites somehow connected – perhaps marking control points of Karchemish and Haššum respectively? Without more evidence this must of course remain speculation, and we may finally turn to the possible international context for Halwanji.

We have previously, in suitably cautious terms, suggested that many of the particulars of the site would fit an identification with ancient Dūr-Šamšī-Adad, a fortress known from a few Mari texts. The "Mari Eponym Chronicle" (MEC) has the following entry for the year Ibni-Adad (ca. 1786 BC):

"… the king seized Mardaman, Širwun, and Haburatum. He built Dūr-Adad and Dūr-Šamšī-Adad in *Dadmûm* (i.e. the kingdom of Jamhad), and defeated Sumu-Epuh on the return march".

This shows that Šamšī-Adad was able to establish two fortified posts in territory at least formally belonging to the kingdom of Jamhad. In spite of later reinforcements deployed both forts were seized by Jamhad ca. 1779 BC (*limmu* Awilija). The son and

[6] Sanlaville 1985: 83.

successor of Sumu-Epuh, Jarim-Lim, years later stated in a letter to Zimri-Lim that his father's life was cut short as a punishment by the god Adad for retaking what he had given to Šamšī-Adad (Durand 2002, text 8). Since Sumu-Epuh actually died shortly after seizing the two forts, it seems likely that these were first established and maintained as part of an agreement with Jamhad. By seizing them Sumu-Epuh would have violated the oath which probably accompanied the agreement, and thus earned divine retribution. These elements seem to fit the case of Halwanji quite well. The sudden establishment of a fortress in the middle of the Sajour region just west of the Euphrates could be the work of Šamšī-Adad. The high-profile contacts with the west attested by the sealings excavated could be a reflection of the short period when the agreement was still honoured. And the destruction at Halwanji could be the end of the agreement.

The history and location of the two fortresses has recently been discussed in detail in two articles by Otto (2009) and Ziegler (2009). The available evidence does not allow a precise location, but it is clear that the fortresses were not very far from each other and that at least Dūr-Adad was close to the Euphrates. It is a reasonable assumption also that they were intended to guard the border between the two kingdoms. Both authors tentatively concluded that the sites of Tell Bazi (on east bank of the Euphrates), and Tell Qitar (on the west bank) are the best candidates. The evidence mustered for this suggestion, however, is not compelling, as discussed elsewhere (cf. Eidem forthcoming). Tells Qitar and Bazi, in spite of quite extensive excavations, have not produced any firm evidence to support a connection with the forts established by Šamšī-Adad. The same admittedly applies to Qala'at Halwanji. The ceramics are local north Syrian types, and the seals represented by the sealings belong in the same context. Future extensive excavations at Qala'at Halwanji, however, may quite likely produce *some* written evidence which may hopefully illuminate the precise historical context.

Discovery of inscriptions at Qala'at Halwanji is indeed a realistic prospect, but the site also holds out the promise of new important information on other levels. The Middle Bronze Age settlement, in any case near-contemporary with the reign of Šamšī-Adad, existed only a few years, and the extensive corpus of ceramic vessels and other objects found in the burnt ruins will provide a very precise profile of material from a distinct period, and provide a benchmark for dating of similar material from more complex excavations. In a more general way Halwanji offers the possibility to uncover, right below the modern surface of the site, an extensive area of an ancient settlement with virtually intact materials *in situ*, and thus the opportunity to reconstruct in great detail daily life here some 4000 years ago.

It should finally be noted that Qala'at Halwanji is the first site in the rich Sajour Valley to be scientifically excavated. Earlier, preliminary surveys (Sanlaville 1985) missed Qala'at Halwanji (and a good deal of other sites), but demonstrated the archaeological potential of an otherwise neglected area, now also investigated by the "Land of Carchemish Project" (Peltenburg et al. 2012).

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Fig. 1. Qala'at Halwanji as seen from Tell Halwanji (on the north bank of the Sajour).

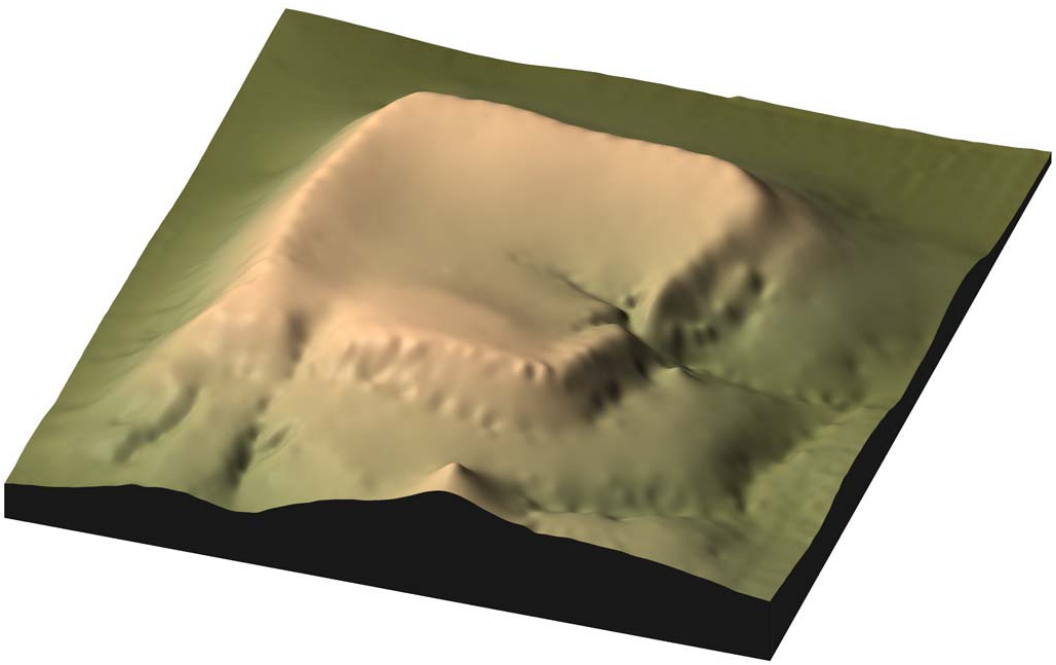

Fig. 2. 3D model of Qala'at Halwanji, seen from the south-east.

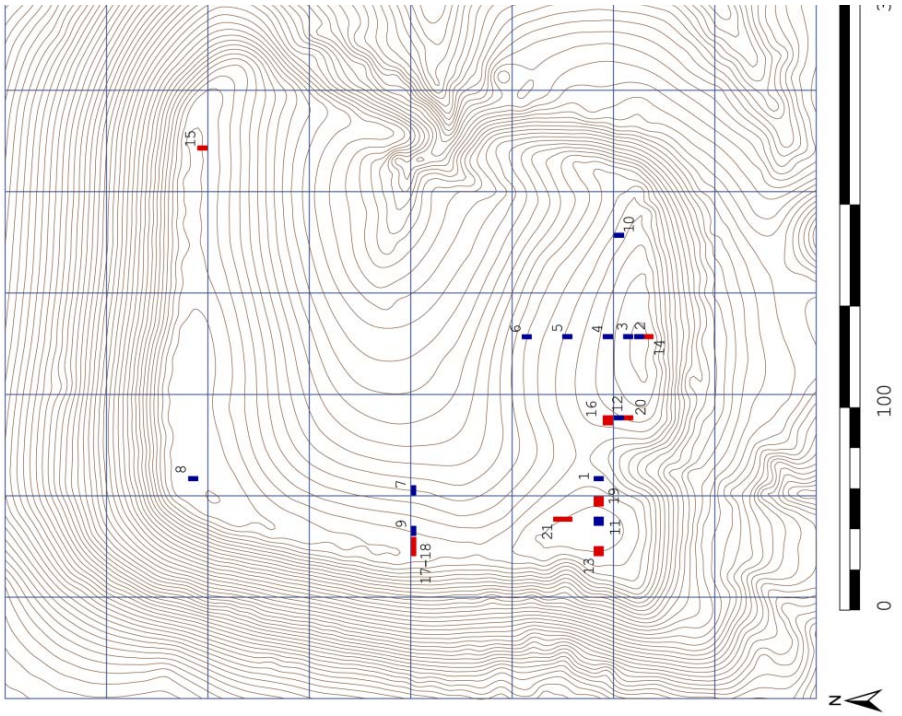

Fig. 3. Topographic map of Qala'at Halwanji. 2008 sondages:1-12; 2009 sondages: 13-21.

Fig. 4. View towards south "Gate" of Qala'at Halwanji.

Fig. 5. View towards SE corner of Qala'at Halwanji (upper right); to left " Monument"(?).

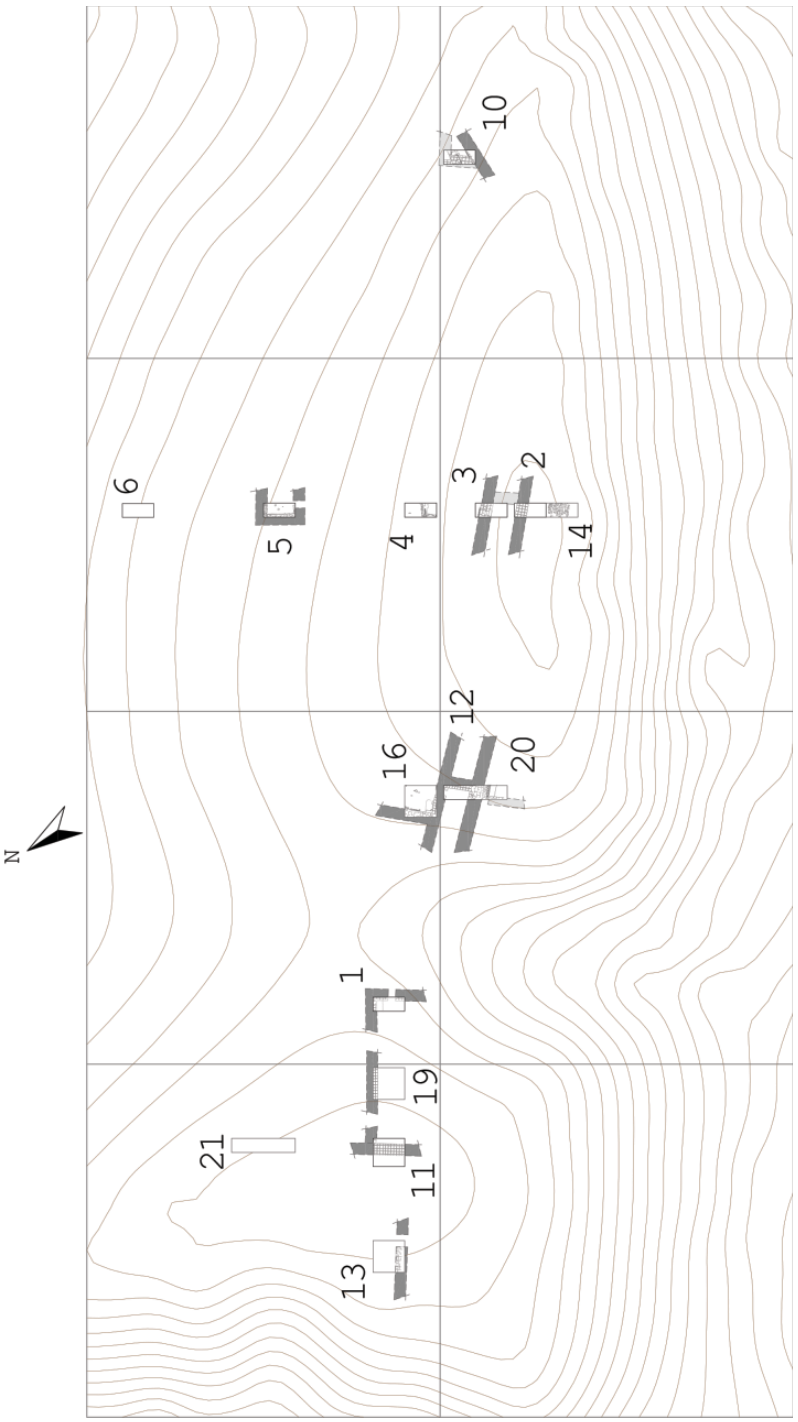

Fig. 6. Sondages on southern part of site. Excavated walls projected beyond exposures. Level II (EB IV) foundations in light grey.

Fig. 7. Sondage 10 (view from N): in rear MB foundation, cutting EB construction (right), cut again by second, unused foundation trench at same angle, and thus presumably also MB.

Fig. 8. Sondage 20 (view from S): in rear MB enceinte, and its foundations, cutting EB wall left (under surveying pole).

Fig. 9. Sondage 18: EB IV beaker (QH.1115/1; Pl. 10: 65).

Fig. 10. Sondage 12: view from north showing outline of plaster feature.

Fig. 11. Sondage 16 (view from E) after cleaning of floor.

Fig. 12. Sondage 16: clay weights (QH.1305-4, 5, 6, 7) and jar cork (QH.1305-3).

Fig. 13. Sondage 16: conical cup (QH.1307/1; Pl. 1: 20).

Fig. 14. Sondage 16: bowl with finger nail impressions (QH.1307/5).

Fig. 15. Sondage 16: small bottle (QH.1306/3; Pl. 2: 22).

Fig. 16. Sondage 1: installations against north wall.

Fig. 17. Sondage 13: broken ceramics from second storey (view from north).

Fig. 18. Sondage 13 (view from northeast).

Fig. 19. Sondage 13 (view from north).

Fig. 20. Sondage 13 (view from S).

Fig. 21. Sondage 19 (view from S): north wall of room in rear; only west part of floor exposed.

Fig. 22. Sondage 19 (view from east): close-up of crushed ceramics and sealing (in foreground).

Fig. 23. Sondage 19: clay sealing (QH.1020-).

Fig. 24. Sondage 19: close-up of sealing QH.1020-1.

Fig. 25. Sondage 19: conical cups from floor (Pl. 1: 2-5).

Fig. 26. Sondage 19: trefoil jugs from floor, partly restored (left jug: Pl. 2: 26).

Fig. 27. Reconstructed image of sealing QH.0508-1.

ANATOLICA XXXIX, 2013

FIGURINES EN TERRE CUITE DE QAL'AT HALAWANJI

Eva Ishaq[*]

Abstract

Six terracotta figurines, all of EB IV date, and found on the surface of Qal'at Halawanji (northwestern Syria), are presented and discussed.

INTRODUCTION

Les travaux de prospection réalisés durant la campagne de 2008 par la mission syro-danoise à Qal'at Halawanji[1] ont livré un lot de six figurines en terre cuite.

Nous proposons dans cette courte note de faire une présentation sommaire associée à une première évaluation, dans l'espoir de compléter notre contribution durant les prochaines campagnes par un classement chronologique des différents types répertoriés.

PRESENTATION DU MATERIEL

Figurine n° 1

Inventaire : 0003-1 (30-IX-2008)

Dimensions : 62 x 14 x 13 mm.

Localisation : Carré n° 3 (partie nord du haut du site).

Description : Fragment d'une figurine humaine en terre cuite, les mains posées horizontalement, la nuque marquée par la présence de deux bandes appliquées et incisées, le corps de section allongée.

Pâte de couleur rosâtre avec surface de couleur crémeuse (slip) et dégraissants minéraux.

Figurine n° 2

Inventaire : 0021-2 (08 X-2008).

Dimensions : 48 x 21 x 09 mm.

Localisation : Carré n° 21 (partie occidentale du haut du site).

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[*] DGAM, Damas.

[1] La surface prospectée couvre presque le tiers du site avec quarante carrés dont chacun mesure 20 m sur 20 m.

Description : Fragment d'une figurine humaine en terre cuite dont le corps (piédestal) présente une section presque rectangulaire.

Pâte de couleur rosâtre avec surface de couleur crémeuse (slip) et dégraissants minéraux.

Figurine n° 3

Inventaire : 0023-2 (08-X-2008).

Dimensions : 49 x 27 x 25 mm.

Localisation : Carré n° 23 immédiatement à l'est du carré 21 (partie occidentale du haut du site).

Description : Partie inférieure d'une figurine humaine en terre cuite avec un piédestal complet dont le large fond présente une section presque ovale.

Pâte de couleur rosâtre avec surface de couleur crémeuse (slip) et dégraissants minéraux.

Figurine n° 4

Inventaire : 0025-1 (11-X-2008).

Dimensions : 45 x 41 x 19 mm.

Localisation : Carré n° 25 immédiatement à 20 m. du carré 23 (partie centrale du haut du site).

Description : Fragment d'une figurine animalière en terre cuite avec un corps cylindrique caractérisé par la présence d'une queue pointue et d'une nuque cylindrique allongée (il manque la tête et les quatre pattes).

Pâte de couleur rosâtre avec surface de couleur crémeuse (slip) et dégraissants minéraux.

Figurine n° 5

Inventaire : 0040-1 (13-X-2008).

Dimensions : 56 x 34 x 10 mm.

Localisation : Carré n° 40 immédiatement au sud du carré 1 (bordure nord-ouest du site).

Description : Partie supérieure d'une figurine humaine en terre cuite avec un corps à section presque ovale, une poitrine légèrement avancée et les deux mains étalées sans doute horizontalement.

Pâte de couleur rosâtre avec surface de couleur crémeuse (slip) et dégraissants minéraux.

Figurine n° 6

Inventaire : 0502-1 (04-X-2008).

Dimensions : 24 x 14 x 12 mm.

Localisation : Nettoyage du fond d'une fosse pillée à côté de la porte sud du site.

Description : Tête allongée d'une figurine humaine en terre cuite avec les yeux appliqués sous forme de deux anneaux, le nez pointu, les oreilles en bourrelet allongé vers le bas et une coiffure marquée par une incision profonde autour du front sous forme de croissant.

Pâte de couleur rosâtre avec surface de couleur crémeuse (slip) et quelques dégraissants minéraux.

DISCUSSION

Les six figurines publiées sont issues d'une prospection systématique de la surface du site. Elles présentent les caractéristiques de la coroplastie d'une production datée de la seconde moitié du III^{ème} millénaire av. J.-C.

Sans entrer dans les détails, ce lot est d'une homogénéité frappante par les types aussi bien que par la pâte, claire et rosâtre, malaxée avec des dégraissants fins. La surface est souvent crémeuse et de texture fine.

Les quatre fragments anthropomorphes n° 1-3 et 5 se rattachent à une tradition euphratéenne locale même s'ils reflètent des influences de la région du triangle du Khabour[2]. Ils portent le type (MAV 2) suivant la terminologie établie par L. Badre[3].

Les comparaisons les plus proches sont attestées à Halawa[4], Harran[5], Tell 'Abd[6] , Tell Bi'a[7], Tell Chuera[8], Tell Selenkahiyeh[9], Tell Umm el-Marra[10]…

La tête humaine n° 6 revêt un intérêt certain avec son visage grossier, son gros nez et le décor appliqué et incisé dans sa partie supérieure pour former une coiffure allongée. Des parallèles sont attestés dans la moyenne vallée de l'Euphrate à Tell Bi'a[11], Tell Selenkahiyeh[12]…

[2] Cf. récemment Pruß 2011.

[3] Cf. les dépliants à la fin dans Badre 1980.

[4] Orthmann 1981, pl. 51/9, et Orthmann 1989, p. 51/fig. 26 (1).

[5] Badre 1980, pl. XXV/2.

[6] Toueir 1978, pl. I/45.

[7] Strommenger et Kohlmeyer 2000, pl. 67/31, 69/25, 70/3 ; Strommenger and Miglus 2010, pl. 3/7.

[8] Orthmann 1995, fig. 15/14 (à l'exception des bras).

[9] van Loon 2001, pl. 6.1 (a-b), 6.2 (a) (à l'exception des bras) ; Liebowitz 1988, pl. 13/1.

[10] Petty 2006, p. 107/25-26, 111/24.

[11] Strommenger and Miglus 2010, pl. 19/7.

[12] van Loon 2001, pl. 6.3 (a) ; Liebowitz 1988, pl. 18 (aspect général).

Enfin, l'unique figurine animalière (n° 4) présente un type rare avec un corps cylindrique, des pattes verticales à section ovale, un long cou vertical et une queue triangulaire pointu. Il s'agit d'un animal domestique qui témoigne de la nature du bétail qui devait être exploité dans la vallée de l'Euphrate.

Nous retrouvons un parallèle proche à Tell Mozan[13]qui représente d'après l'auteur une chèvre (*capra* en latin). En revanche plusieurs parallèles proviennent de Tell es-Sour[14] et de Tell Sh'eirat[15] à la lisière occidentale de la steppe syrienne

CONCLUSION

Ce qui paraît évident, c'est que les figurines trouvées à la surface de Qal'at Halawanji représentent un lot homogène appartenant à un atelier local de l'Euphrate. Il est impossible à ce jour d'avancer une proposition de datation précise. Les parallèles orientent vers la seconde moitié du III^{ème} millénaire av. J.-C. Cette fourchette chronologique s'inscrit parfaitement dans le contexte chronostratigraphique du site.

[13] Hauser 2007, pl. XLVIII, L.

[14] Al-Maqdissi et Ishaq 2012 : p. 10/fig. 6.

[15] Figurines en préparation pour les Actes du colloque de Stuttgart sur *Qatna* et sa région.

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4. 0025-1

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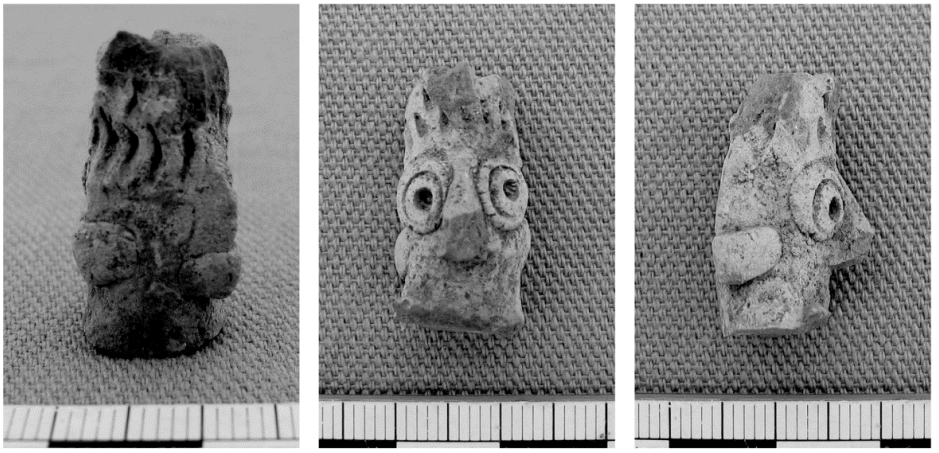

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Planche 1. Photographies.

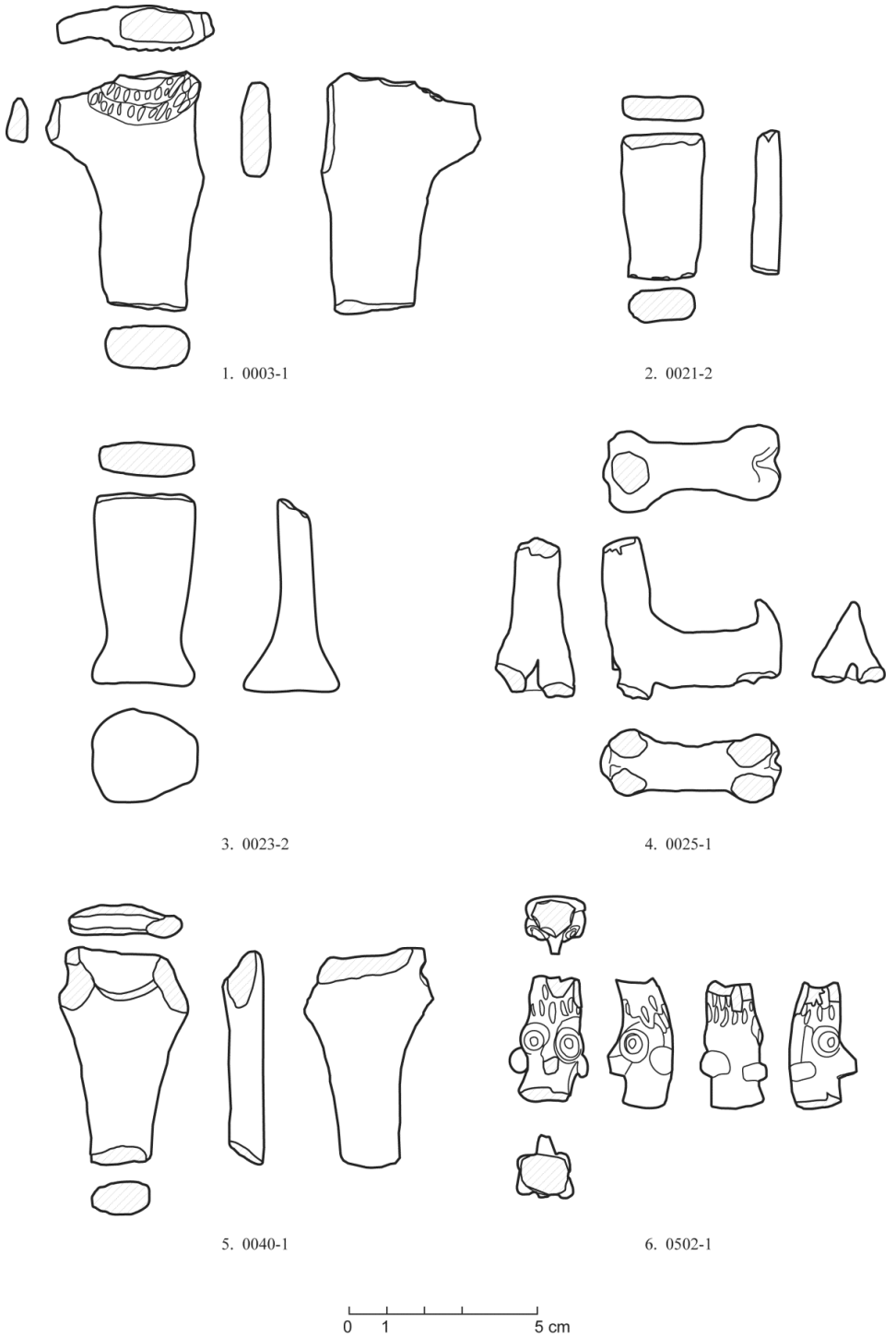

Planche 2. Dessins au trait.

ANATOLICA XXXIX, 2013

NOTICE SUR LA POTERIE DE L'ÂGE DU BRONZE DE QAL'AT HALAWANJI (FOUILLES SYRO-DANOISES)

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Abstract

This article presents and discusses selections of EB IV and MB II ceramics excavated by a Syrian-Danish team at Qal'at Halawanji (north-western Syria) in 2008-2009.

INTRODUCTION

Les fouilles menées par l'équipe syro-danoise à Qal'at Halawanji dans la partie haute de l'Euphrate syrien sur le Sajour ont apportées des informations importantes sur une occupation bien conservée datée du Bronze moyen II.

Les données sur la production céramique recueillies montrent la présence d'une typologie variée avec des formes appartenant à une tradition occidentale.

MATERIEL ARCHEOLOGIQUE

Nous proposons dans cette notice de présenter les principaux types attestés afin de pouvoir réaliser une première évaluation de cette production et d'essayer de la placer dans un horizon syrien. Notons que le contexte stratigraphique ne sera abordé qu'avec l'avancement du travail sur le terrain durant les prochaines campagnes.

Production du Bronze moyen

Bol

Bol à profil en 'S' et fond en disque plat (n°1).

Bol caréné à fond légèrement arrondi (nos 2-4 et 18).

Bol caréné à fond plat (nos 5-7, 9 et 17).

Bol caréné à fond arrondi (n° 8).

Bol caréné à fond annulaire (nos 10-13, 15-16).

Bol caréné à fond en disque plat (nos 14 et 19-20).

Grand bol caréné à fond plat et à biberon latéral (n° 30).

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Flacon

Flacon de forme ovoïde à fond en disque plat (n° 22).

Flacon de formes ovoïde ou globulaire à fond annulaire (nos 21 et 23).

Petit plat

Petit plat à lèvre en bourrelet (nos 31-32 et 36).

Petit plat à lèvre en bourrelet et à fond annulaire (n° 37).

Petit plat à lèvre arrondie (n°33-34).

Petit plat à lèvre amincie (n° 35).

Cruche

Cruche de forme ovoïde en disque plat et à anse torsadée (n° 24).

Cruche de forme biconique à ouverture pincée et à fond plat (n° 25).

Cruche à ouverture pincée (nos 26-27).

Cruche de forme globulaire, col légèrement évasé et panse munie de bandes peignées (nos 40-46).

Cruche de forme elliptique, col légèrement évasé et panse munie d'une bande peignée (n° 47).

Gourde

Gourde de forme globulaire, col légèrement évasé, anse bifide et fond plat (n° 28).

Jarre

Jarre de forme globulaire, col légèrement évasé et panse munie sur l'épaule de bandes peignées (n° 48).

Jarre de forme globulaire, col légèrement évasé à saillie angulaire (n° 49).

Jarre à profil en 'S', fond plat, lèvre en bourrelet et panse munie sur l'épaule d'une bande incisée (nos 56-59).

Col vertical de jarre à lèvre en bourrelet (n° 50).

Col évasé de jarre probablement globulaire à lèvre en bourrelet et panse munie sur l'épaule de bandes peignées associées à une incision en ligne ondulée (n° 51).

Col court de jarre à lèvre en bourrelet et panse munie sur l'épaule de bandes en cordon incisé simple ou en chevron (nos 52 et 54-55).

Col court de jarre à lèvre en bourrelet et panse munie sur l'épaule d'incisions profondes (n° 53).

Marmite

Marmite à lèvre en bourrelet et panse munie sur l'épaule d'incisions profondes (nos 60-61).

Marmite à col évasé et panse elliptique munie sur l'épaule de bandes en cordon incisé (nos 62-63).

Production du Bronze ancien IV

Gobelet

Gobelet à fond en disque plat, panse cylindrique, lèvre droite arrondie et surface décorée de rainure (nos 65-66).

Bol

Bol profond de forme évasée et lèvre droite épaissie (n° 67).

Jarre

Jarre de forme elliptique à lèvre droite épaissie munie probablement d'un tenon (n° 68).

PRESENTATION

Le corpus présenté dans cette notice comporte une production variée datant de presque durant un millénaire (BA IV – BM II). Nous proposons de présenter quelques remarques préliminaires afin de dégager une première conclusion provisoire dans l'attente de la poursuite des fouilles. Notons que nous avons limité les comparaisons aux principaux sites avec la volonté de ne pas alourdir les notes en bas du texte.

- Les bols carénés, ou à profil en 'S', appartiennent à une tradition du Bronze moyen IB et II. Les comparaisons sont attestées principalement dans les sites du moyen Euphrate[1], à Tell Bi'a[2], à Ansari-Alep[3], à Tell Hammam el-Turkman[4], en Syrie occidentale[5], à Hama[6], à Tell Mardikh[7], à Mishirfeh ainsi que dans sa région[8], à Ras Shamra[9], à Tell Sukas[10], à Amrith[11] et à Tell Arqa.

[1] Dornemann 2007 : 48, pl. I (nos 4-6) ; 49, pl. III (nos 6-14).

[2] Miglus et Strommenger 2007 : pl. 39 (n° 3).

[3] Suleiman et Gritsenko 1987 : 237, pl. I (nos 4-6).

[4] Curvers 1988 : 427, pl. 128 (nos 64, 67-68).

[5] Al-Maqdissi 2006-2007 : 63, fig. 1.

[6] Fugmann 1958 : 89, fig. 109 (3B 312, 3B 995); 90, fig. 110 (3B 923-15, 3A 891-17, 3A 892-17…); 96, fig. 117 (2D 469); 98, fig. 120 (2D 400, 2D 428); 101, fig. 124 (2D 413, 2C 909).

[7] Nigro 2002 : 123, pl. LIII (nos 56-58), bols datés du Bronze moyen I B-II A.

[8] du Mesnil du Buisson 1930 : pl. XXXII, tombe n° 1 de Dnébi ; XXXIII, tombe n° I et sous la coupole de Loth de Mishirfeh, tombe 1 de Osmaniyeh.

[9] Schaeffer 1949 : 241, fig. 101 (nos 12, 15, 29); 249, fig. 105 (nos 7, 15); 153, fig. 5, 8, 21); Courtois 1978 : 201, fig.

[10] Thrane 1978 : 30, fig. 48; 31, fig.48; 51-52; 32, fig. 60.

[11] Al-Maqdissi 1986 : 33-34, fig. 1-3.

- Les flacons de formes globulaire et ovoïde appartiennent à un contexte funéraire du Bronze moyen II à Ansari-Alep[12], dans la partie occidentale de la Syrie[13], à Hama[14], à Tell Mardikh[15], à Mishirfeh et dans sa région[16].
- Les cruches simples ou à ouverture pincée se rattachent à une tradition du Bronze moyen II dans la partie occidentale de la Syrie[17], à Hama[18], à Mishirfeh[19], à Tell Mardikh[20], à Ras Shamra[21], à Tell Sukas[22] et en Syrie du Sud[23].
- La gourde de forme globulaire et anse bifide porte une forme du Bronze moyen II B attestée à Tell Ashara[24], à Tell Bi'a[25] et à Mishirfeh et sa région[26].
- Les petits plats appartiennent à un type commun du Bronze moyen II dans les sites de la moyenne vallée de l'Euphrate[27], à Ansari-Alep[28], à Tell Mardikh[29], à Ras Shamra[30], à Hama[31] et en Syrie du Sud[32].
- Les petites et moyennes jarres à surface décorée en bande peignée sont attestées à la fin du Bronze moyen I et au Bronze moyen II à Tell Bi'a[33], à Tell Hammam el-Turkman[34], dans les sites de la région du Jézireh[35], à Tell Mardikh[36] et en Syrie du Sud[37].

[12] Suleiman et Gritsenko 1987 : 237, pl. I (nos 8-9, 30-31…).

[13] Al-Maqdissi 2006-2007 : 66, fig. 11.

[14] Fugmann 1958 : pl. X (5B 683, 5B 380, 5B 402).

[15] Nigro 2002 : 128, pl. LVI (n° 92) flacon daté du Bronze moyen II A-B.

[16] du Mesnil du Buisson 1930 : pl. XXXIII, Tombe n° I et sous la coupole de Loth de Mishirfeh et Tombe n° 1 de Osmaniyeh.

[17] Al-Maqdissi 2006-2007 : 66, fig. 13.

[18] Fugmann 1958 : 89, fig. 109 (3F 368); 90, fig. 110 (3A 734-16); pl. X (6A 309, 6A 305, 6A 303).

[19] du Mesnil du Buisson 1935 : 57, fig. 8.

[20] Pinnock 2005 : pl. LV (nos 1-2), LVI (n° 1).

[21] Schaeffer 1949 : 249, fig. 105 (n° 38).

[22] Thrane 1978 : 34, fig. 84.

[23] Braemer et Al-Maqdissi 2002 : 47, pl. XVII (nos 82, 84).

[24] Kelly-Buccellati et Shelby 2007 : 135, pl. V (n° 40).

[25] Miglus et Strommenger 2007 : pl. 65 (n° 2).

[26] du Mesnil du Buisson 1930 : pl. XXXI, Tombe n° 1 de Osmaniyeh ; du Mesnil du Buisson 1935 : 59, fig. 11.

[27] Dornemann 2007 : 50, pl. IV (nos 39, 32…).

[28] Suleiman et Gritsenko 1987 : 237, pl. I (nos 38-39).

[29] Nigro 2002 : 123, pl. LII (n° 66) plat daté du Bronze moyen I B-II A.

[30] Courtois 1978 : 205, fig. 3 (nos 1-2, 9).

[31] Fugmann 1958 : 98, fig. 120 (2D 448) ; 101, fig. 124 (2C 926, 2C 928) ; 104, fig. 127 (4B 178, 4C 306).

[32] Braemer et Al-Maqdissi 2002 : 40, pl. X.

[33] Miglus et Strommenger 2007 : pl. 48 (n° 5).

[34] Thissen 1988 : 164, pl. 57 (n° 15) ; Curvers 1988 : 443, pl. 136 (n° 141).

[35] Faivre et Nicolle 2007 : 223, pl. XIII (nos 384-185).

[36] Nigro 2002 : 117, pl. XLVII (nos 19-21); 119, pl. XLIX (nos 48-49); 120, pl. L (nos 51-52).

[37] Braemer et Al-Maqdissi 2002 : 38, pl. VIII (n° 8).

- Les cols courts de jarres à lèvre en bourrelet et panse munie sur l'épaule de bandes en cordon incisé simple ou en chevron sont attestés dans les sites de la moyenne vallée de l'Euphrate[38], à Tell Hammam el-Turkman[39], à Tell Ashara[40], dans la région de la Jézireh[41] et à Tell Mardikh[42].
- Le décor en chevron couvre presque toute la période du Bronze moyen. Il est attesté sur les sites de la moyenne vallée de l'Euphrate[43], à Tell Hammam el-Turkman[44], dans la région de la Jézireh[45], à Ansari-Alep[46], à Hama[47], à Tell Mardikh[48], à Ras Shamra[49] et en Syrie du Sud[50].
- Le décor en bandes peignées associées à une incision en ligne ondulée est bien attesté durant le Bronze moyen et même au début du Bronze récent dans les sites de la moyenne vallée de l'Euphrate[51], de la région du Jézireh[52], à Ansari-Alep[53], à Tell Bi'a[54], à Tell Hammam el-Turkman[55], à Hama[56], à Tell Mardikh[57], à Tell Afis[58] et en Syrie du Sud[59].
- Les gobelets présentés dans ce corpus appartiennent à une zone géographique qui s'étend de la vallée de l'Oronte jusqu'à la moyenne vallée de l'Euphrate. Ils sont liés à une production datée d'une phase relativement tardive du Bronze ancien IV A ou du début du Bronze ancien IV B. Des comparaisons sont attestées à

[38] Dornemann 2007 : 50, pl. IV (n° 30).
[39] Thissen 1988 : 171, pl. 60 (n° 32).
[40] Kelly-Buccellati et Shelby 2007 : 147, pl. XI (nos 85-86).
[41] Faivre et Nicolle 2007 : 207, pl. V (nos 127-128).
[42] Pinnock 2005 : pl. XCVII (nos 1-2), CII (nos 1-2).
[43] Dornemann 2007 : 50, pl. IV (nos 34-35, 38, 40).
[44] Thissen 1988 : 167, pl. 59 (n° 30).
[45] Faivre et Nicolle 2007 : 209, pl. VI (nos 155…).
[46] Suleiman et Gritsenko 1987 : 239, pl. II (n° 136).
[47] Fugmann 1958 : 90, fig. 110 (3D 580-13); 98, fig. 120 (3A 26).
[48] Pinnock 2005 : pl. CVII (n°1).
[49] Courtois 1978 : 215, fig. 6 (nos 17, 19).
[50] Braemer et Al-Maqdissi 2002 : 28, fig. 12-14.
[51] Dornemann 2007 : 50, pl. IV (nos 31, 34) ; McClellan 2007 : 63, pl. III (n° 7).
[52] Faivre et Nicolle 2007 : 221, pl. XII (n° 373); 223, pl. XIII (nos 390-391); 225, pl. XIV (nos 433-434).
[53] Suleiman et Gritsenko 1987 : 239, pl. II (n° 134).
[54] Miglus et Strommenger 2007 : pl. 40 (nos 4-7).
[55] Thissen 1988 : 167, pl. 58 (n° 26) ; Curvers 1988 : 445, pl. 137 (n° 160); 448, pl. 139 (n° 164); 453, pl. 141 (n° 202).
[56] Fugmann 1958 : 90, fig. 110 (3D 580-13, 3C 643-12); 108, fig. 132 (S.N°-N14).
[57] Nigro 2002 : 124, pl. LIII (nos 71-72).
[58] Mazzoni 2002b : 142, pl. LXIV (n° 59).
[59] Braemer et Al-Maqdissi 2002 : 27, fig. 11.

Selenkahiyeh[60], à Hama[61], dans la plaine d'Antioche[62], à Tell Mardikh[63], à Tell Rawda[64], en Syrie centrale[65] et à Tell Arqa[66].

- Le bol à lèvre droite épaissie trouve des comparaisons au Bronze ancien IV B à Selenkahiyeh[67], à Tell Bi'a[68], à Hama[69], en Syrie centrale[70]; de même que la jarre de forme elliptique à lèvre droite épaissie appartient à une tradition proche de la production à Selenkahiyeh[71] et à Hama[72].

CONCLUSION

Le matériel rapporté de la première campagne de fouille à Qal'at Halawanji s'avère très important. La planche qui regroupe les cinq vases du III^e^ millénaire comporte des formes typiques de la fin du Bronze ancien de la moyenne vallée de l'Euphrate et de la Syrie occidentale. Les comparaisons attestées permettent de les dater d'une phase avancée du Bronze ancien IVA avec une extension au Bronze ancien IVB. De même, d'autres comparaisons pour le matériel de la première moitié du II^e^ millénaire indiquent qu'il s'agit de formes nettement occidentales provenant de la région d'Alep et la Syrie intérieure, ainsi que dans la plaine d'Antioche. Les dates avancées d'après les formes publiées dans les neuf planches nous amènent à confirmer une date du Bronze moyen II A-B avec quelques formes du début du Bronze récent. Par contre, le Bronze moyen I reste très difficile à identifier malgré la présence de certains bols et jarres évoquant des formes très anciennes qui pourraient être dater avec prudence du XX^e^ siècle av. J.-C.

Nous espérons avec le développement de la fouille pouvoir obtenir une séquence plus détaillée et ainsi arriver à nuancer une typologie qui sera très utile pour comprendre la nature des contacts de la région du Sajour avec l'ouest et les circulations de la poterie dans le cadre des sites du III^e^ et II^e^ millénaires av. J.-C.

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[60] van Loon 2001 : 128, fig. 4A.5 (n° 24); 272, fig. 5A.5 (nos g-l).

[61] Fugmann 1958 : 59, fig. 65 (3G 285 n°6); 64, fig. 74 (3G 699); 65, fig. 75 (3D 968 n° 3, 3D 969 n°1); 74, fig. 93 (3K 333).

[62] Braidwood et Braidwood 1960 : 438, fig. 338 (nos 15-16).

[63] Mazzoni 1988 : 95, fig. 4 (nos 5-6).

[64] Boudier 2007 : 31, pl. I (nos 8-10, 12-14).

[65] Mazzoni 2002 a : 88, pl. XXXVIII (n° 83) gobelet daté du Bronze ancien IV A2.

[66] Thalmann 2006 : pl. 56 (nos 14-15).

[67] van Loon 2001 : 269, fig. 5A. 2 (nos c, e, g-o).

[68] Strommenger et Kohlmeyer 2000 : pl. 62 (n°6), 66 (n° 34), 73 (n° 50).

[69] Fugmann 1958 : 58, fig. 64 (3K 356); 64, fig. 75 (3K 20); 65, fig. 75 (3H 621); 75, fig. 93 (3F 686).

[70] Mazzoni 2002 a : 94, pl. XLIV (n° 121) bol daté du Bronze ancien IV B.

[71] van Loon 2001 : 295, fig. 5A. 28 (n° d).

[72] Fugmann 1958 : 65, fig. 75 (3J 15); 69, fig. 85 (3E 930).

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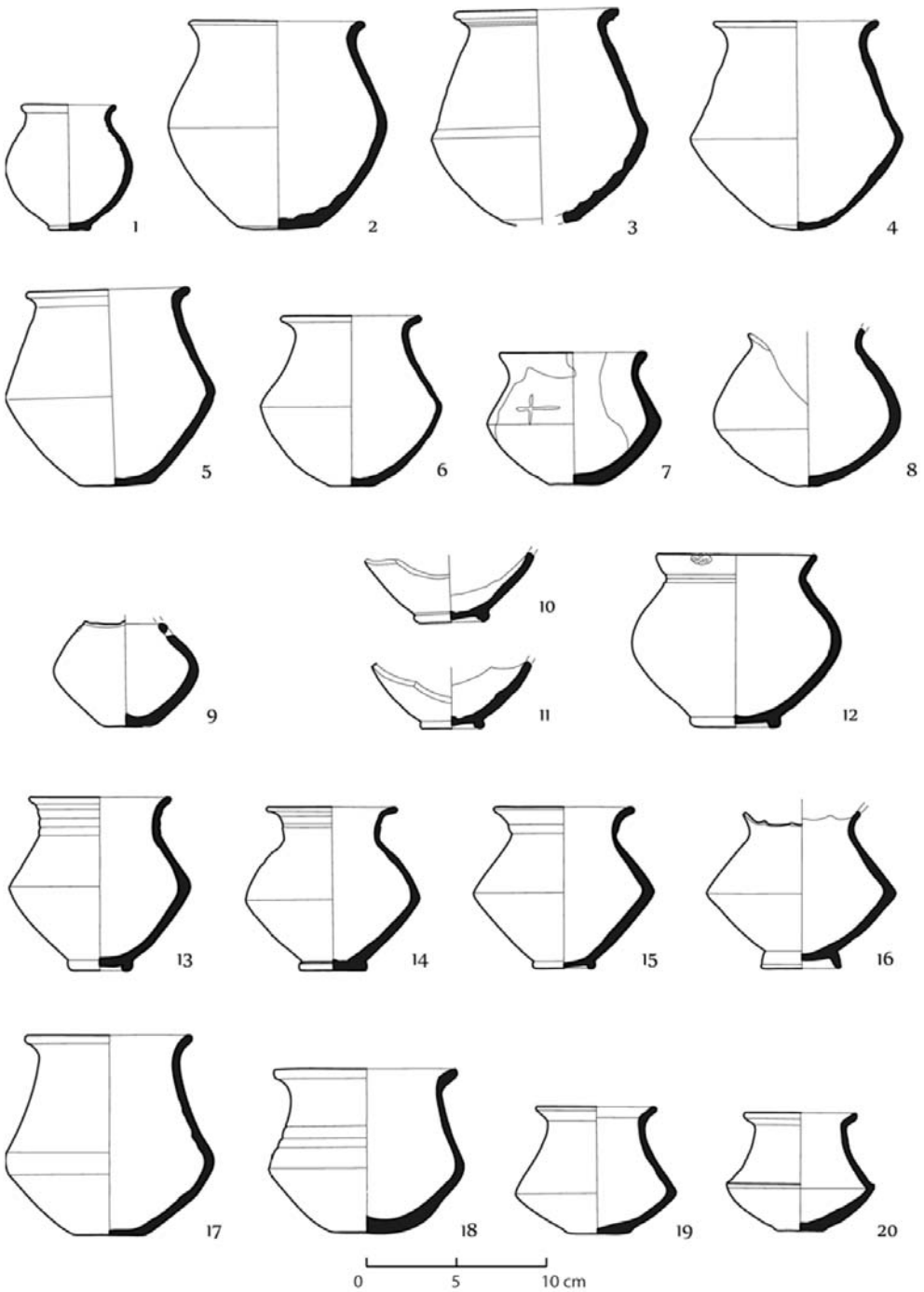
DESCRIPTION DE LA POTERIE

no.	*QH Locus*	*Unit*	*No*	*Type*	*Dm*	*Base*	*Height*	*Ware*	*Temper*	*Location*
					Planche 1					
1	S.09	804	5	Cup	52	22	70	C	m	On floor. SW corner
2	S.19.1	1020	3	Cup	95	45	116	C	M1mW	On floor
3	S.19.1	1020	1	Cup	90	/	120	C	M2mW	On floor
4	S.19.1	1020	4	Cup	90	/	115	C	M1W	On floor
5	S.19.1	1020	2	Cup	90	40	111	C	M1mW	On floor
6	S.16	1307	2	Cup	75	25	94	C	M2m	On floor
7	S.05	652	3	Cup	80	30	72	C	M2	On floor
8	S.09	803	1	Cup	/	/	/	C	M2m	On floor. E end
9	S.06	700	1	Cup	/	25	/	B	M2	Topsoil
10	S.09	804	7	Cup	/	35	/	D	M1m	N center
11	S.09	804	6	Cup	/	32	/	D	M1m	On floor. N center
12	S.12	907	1	Cup	88	45	96	B	/	On floor
13	S.09	804	2	Cup	80	30	98	C	m1m	Fill close to floor
14	S.16	1306	1	Cup	70	35	90	C	m	On floor
15	S.09	804	3	Cup	75	30	90	D	M2m	On floor
16	S.12	906	1	Cup	/	42	/	D	/	On floor
17	S.05	654	3	Cup	90	40	110	D	M2m	On/near floor
18	S.05	653	3	Cup	100	45	90	C	M2mW	On/near floor
19	S.16	1306	2	Cup	65	35	70	B	M2m	On floor
20	S.16	1307	1	Cup	60	27	65	B	M2	On floor

no.	*QH Locus*	*Unit*	*No*	*Type*	*Dm*	*Base*	*Height*	*Ware*	*Temper*	*Location*
					Planche 2					
21	S.16	1312	1	Bottle	35	30	141	F	m	Phase 1 floor
22	S.16	1306	3	Bottle	30	27	123	C	mW	On floor
23	S.01	505	1	Bottle	/	25	/	D	M1m	Upper fill (“roof”)
24	S.09	804	1	Jug	/	78	(260)	D	M2m	On floor. W end
25	S.09	804	4	Jug	/	70	210	C	m	Under jar (11) near center at S baulk
26	S.19.1	1020	5	Jug	/	/	/	C	M1mW	On floor
27	S.19.1	1020	8	Jug	/	/	/	B	M1W	On floor
					Planche 3					
28	S.09	804	11	Jar	95	/	(390)	D	M1m	On floor at S baulk
29	S.16	1312	2	Jar	135	/	/	D	M2m	Phase 1 floor
30	S.05	654	2	Vat	140	84	155	D	M2	On/near floor
31	S.11.1	718	1	Bowl	140	/	/	/	/	From pile above floor
32	S.11.1	719	2	Bowl	180	/	/	/	/	From pile above floor
33	S.11.1	718	2	Bowl	180	/	/	/	/	From pile above floor
34	S.03	557	1	Bowl	260	95	55	/	/	On floor(?)
35	S.11.1	719	3	Bowl	300	/	/	/	/	From pile above floor
36	S.05	654	5	Bowl	320	/	/	D	M2m	On/near floor
37	S.11.1	719	1	Bowl	400	160	87	/	/	From pile above floor
					Planche 4					
38	S.01	507	5	Jar	105	105	396	D	M2	Crushed. Inside embedded jar
39	S.01	507	6	Jar	100	110	395	D	M1m	Partly in S baulk
40	S.01	507	7	Jar	100	/	(398)	D	M2	On platform in N end between 2 embedded jars
41	S.16	1312	3	Jar	140	/	/	D	M1m	Phase 1 floor
42	S.11.1	719	9	Jar	140	/	/	/	/	From pile above floor
					Planche 5					
43	S.01	513	1	Jar	110	/	/	G	M1m	Covered by Phase 2 platform
44	S.19.1	1020	10	Jar	110	/	/	C	M1	On floor
45	S.01	513	2	Jar	110	/	/	G	M1m	Covered by Phase 2 platform
46	S.19.1	1020	11	Jar	115	/	/	C	M1W	On floor
47	S.01	507	9	Jar	100	/	/	C	M1m	On floor near doorway E

no.	*QH Locus*	*Unit*	*No*	*Type*	*Dm*	*Base*	*Height*	*Ware*	*Temper*	*Location*
						Planche 6				
48	S.01	504	1	Jar	120	/	/	D	M1W	Upper fill (“roof”)
49	S.16	1307	4	Jar	100	/	/	C	M1m	On floor
50	S.01	507	8	Jar	360	/	/	C	M2m	Embedded in platform in NW corner
51	S.11.1	719	24	Jar	327	/	/	D	M1m	N jar embedded in floor
52	S.11.1	719	25	Jar	360	/	/	D	M1m	S jar embedded in floor
						Planche 7				
53	S.01	507	4	Jar	280	/	/	C	M3m	Embedded in platform near doorway E
54	S.04	603	1	Jar	275	/	/	D	M1WO1	On floor
55	S.05	653	1	Jar	260	/	/	C	M2m	On/near floor
						Planche 8				
56	S.05	655	2	Vat	260	/	/	B	M2m	On/near floor
57	S.19.1	1018	1	Vat	210	90	259	B	M2m	Upper fill (“roof”). NW corner
58	S.09	803	3	Vat	400	200	505	/	/	E end. E of tannurs
59	S.12	906	2	Vat	250	115	336	D	M1m	On floor
						Planche 9				
60	S.09	803	5	Jar	200	/	/	Coo	M2m	E end. E of tannurs
61	S.05	654	1	Pot	260	/	/	Coo	M2	On/near floor
62	S.11.1	719	26	Pot	260	/	/	Cook	M3W	From pile above floor
63	S.13.1	1206	1	Pot	540	/	/	Cook	M2m	Upper fill (“roof”). Near center of W baulk
						Planche 10				
64	S.09.1	806	1	Cup	90	35	111	B	M2m	Fill under floor
65	S.18	1115	1	Cup	85	43	115	B	M1	In rampart fill
66	S.18	1115	2	Cup	80	/	/	A	M1	In rampart fill
67	S.18	1115	4	Bowl	180	/	/	A	M1	In rampart fill
68	S.18	1115	3	Pot	180	/	/	Cook	M2m	In rampart fill



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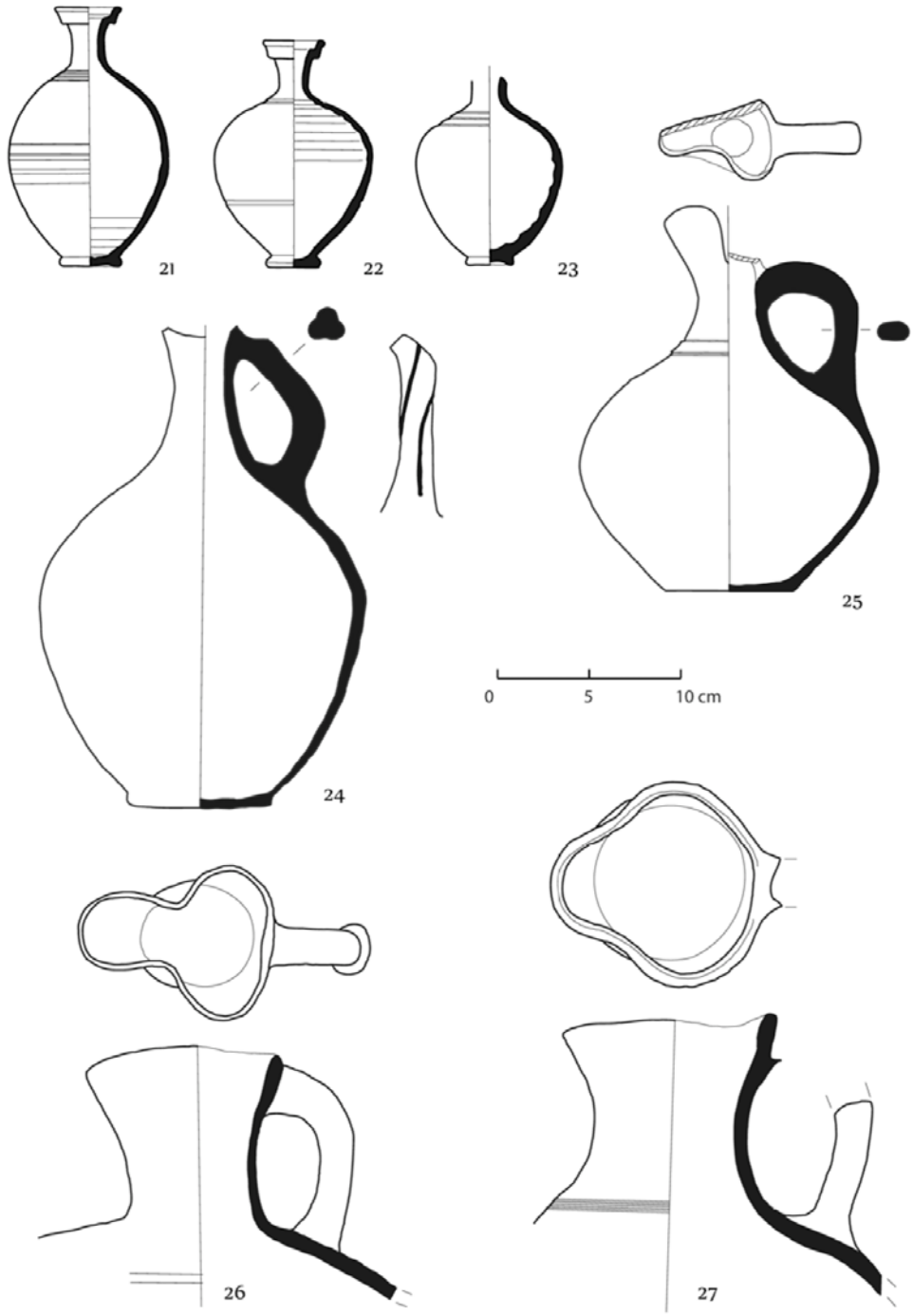

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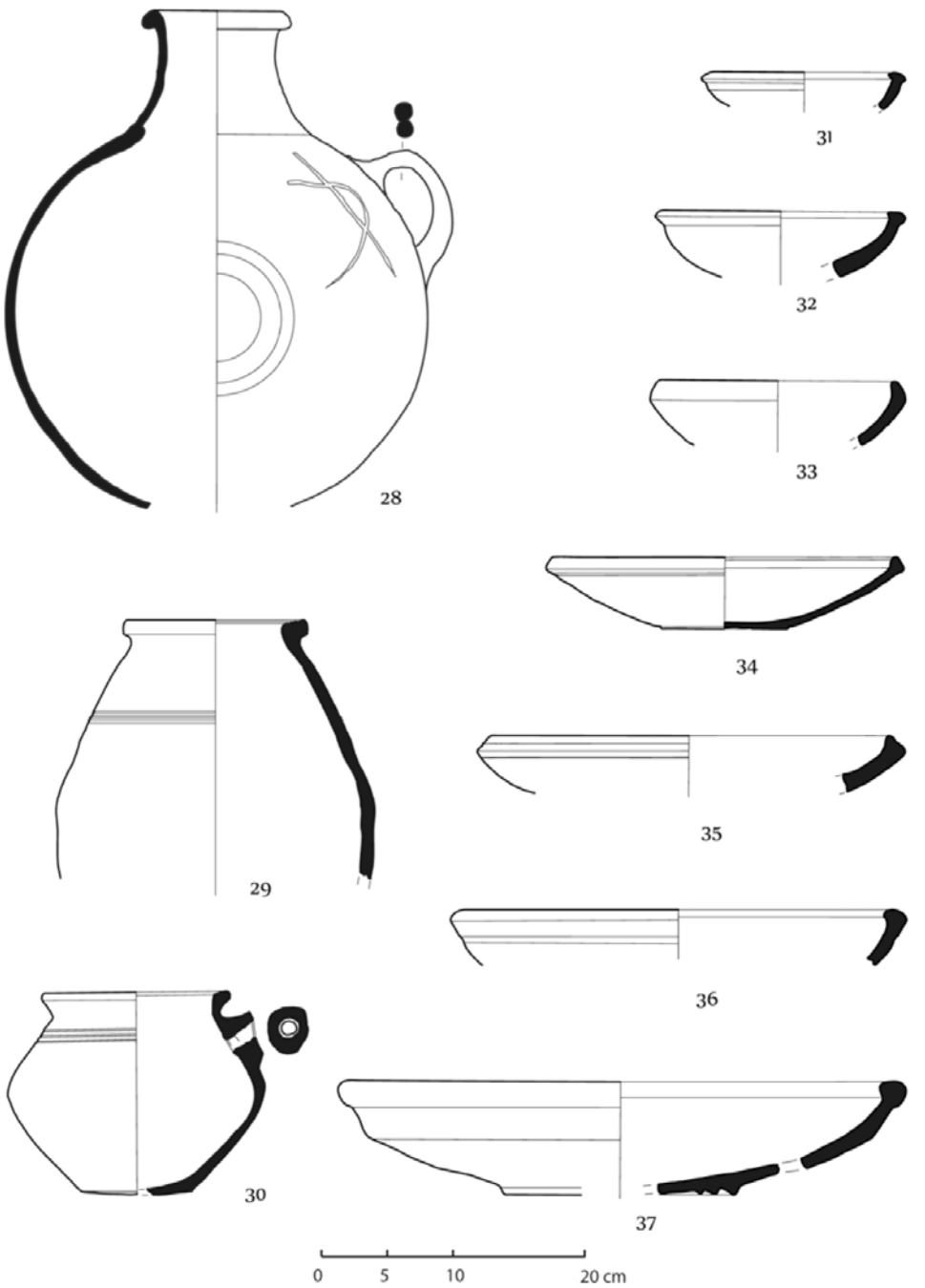

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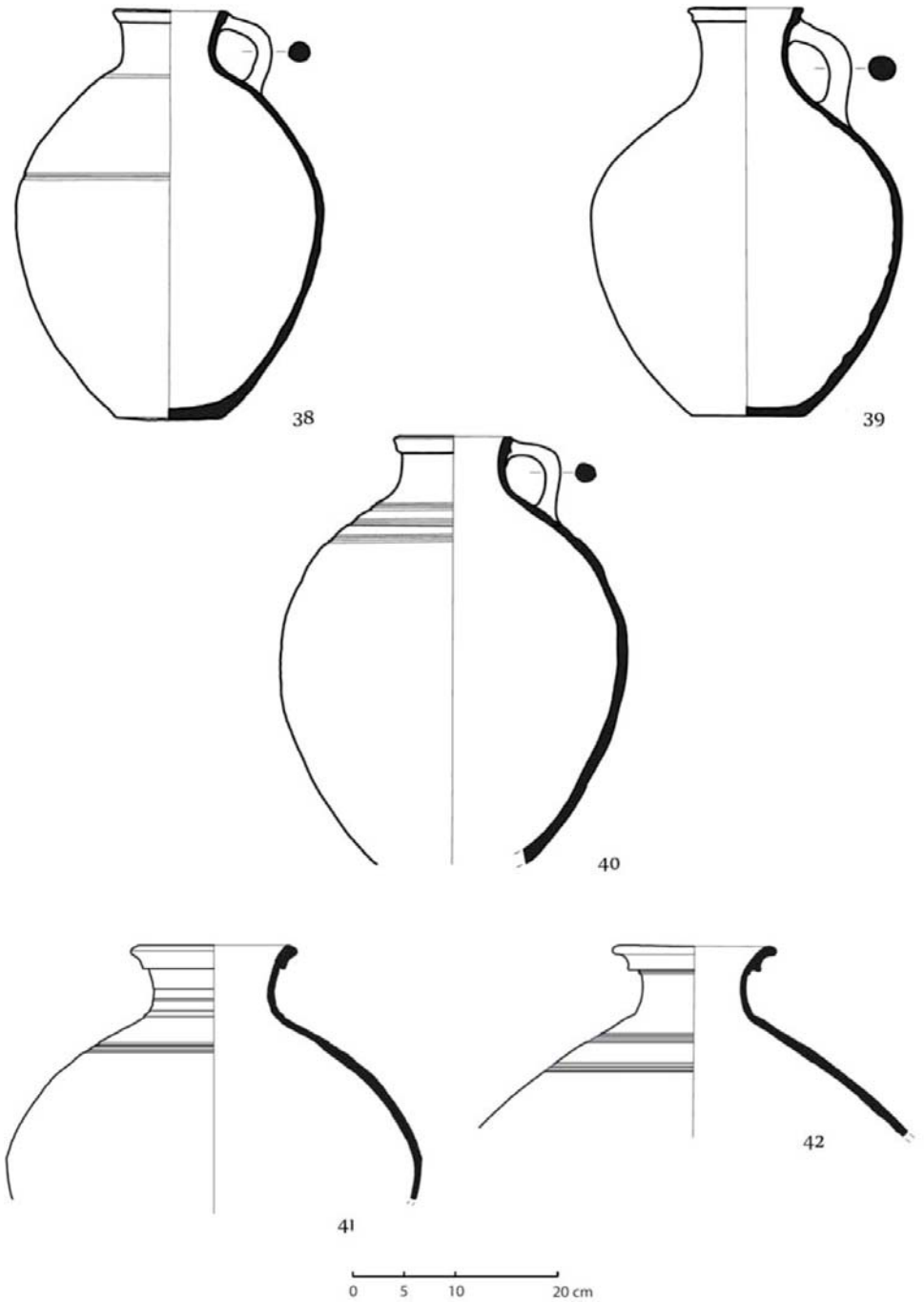

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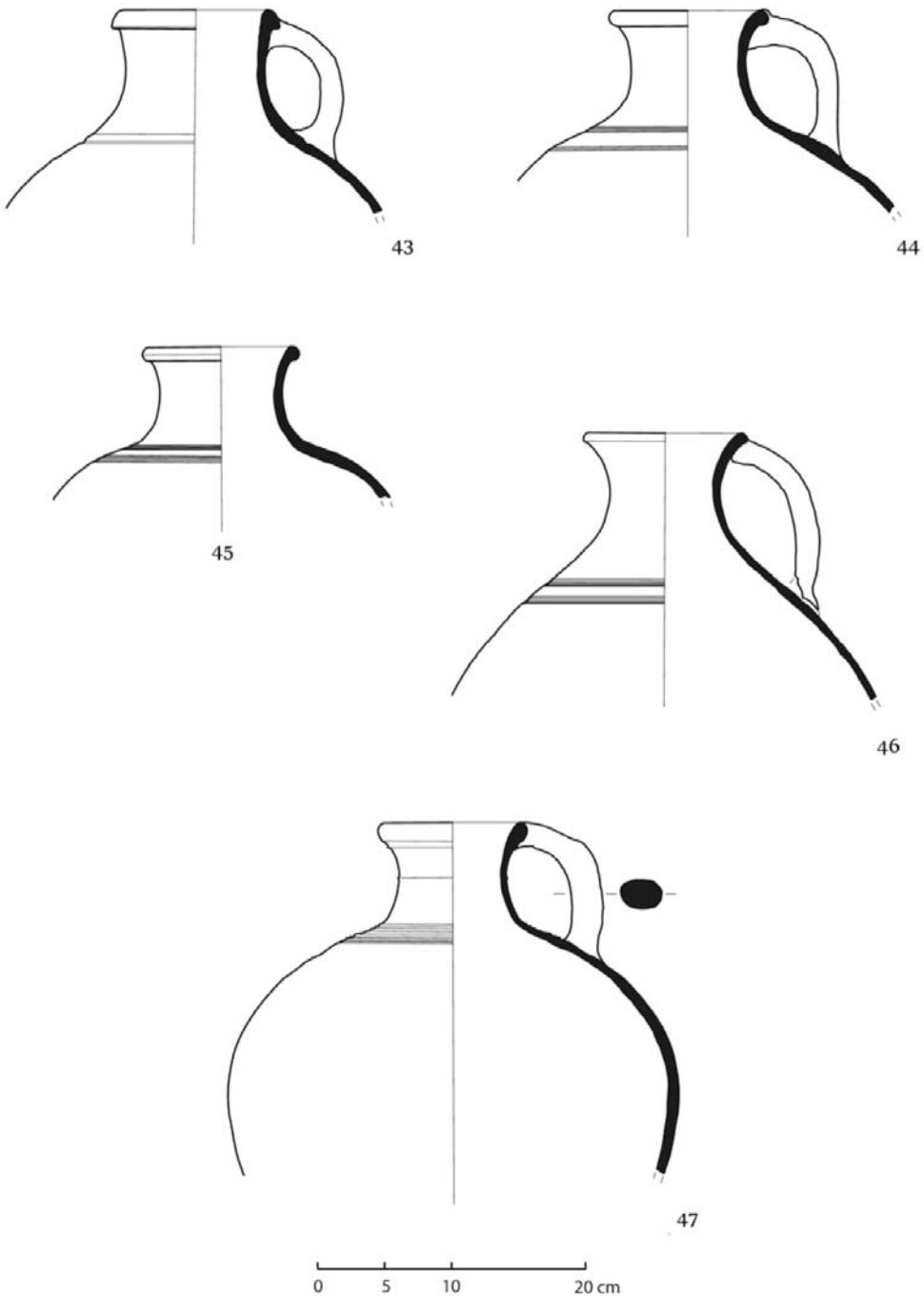

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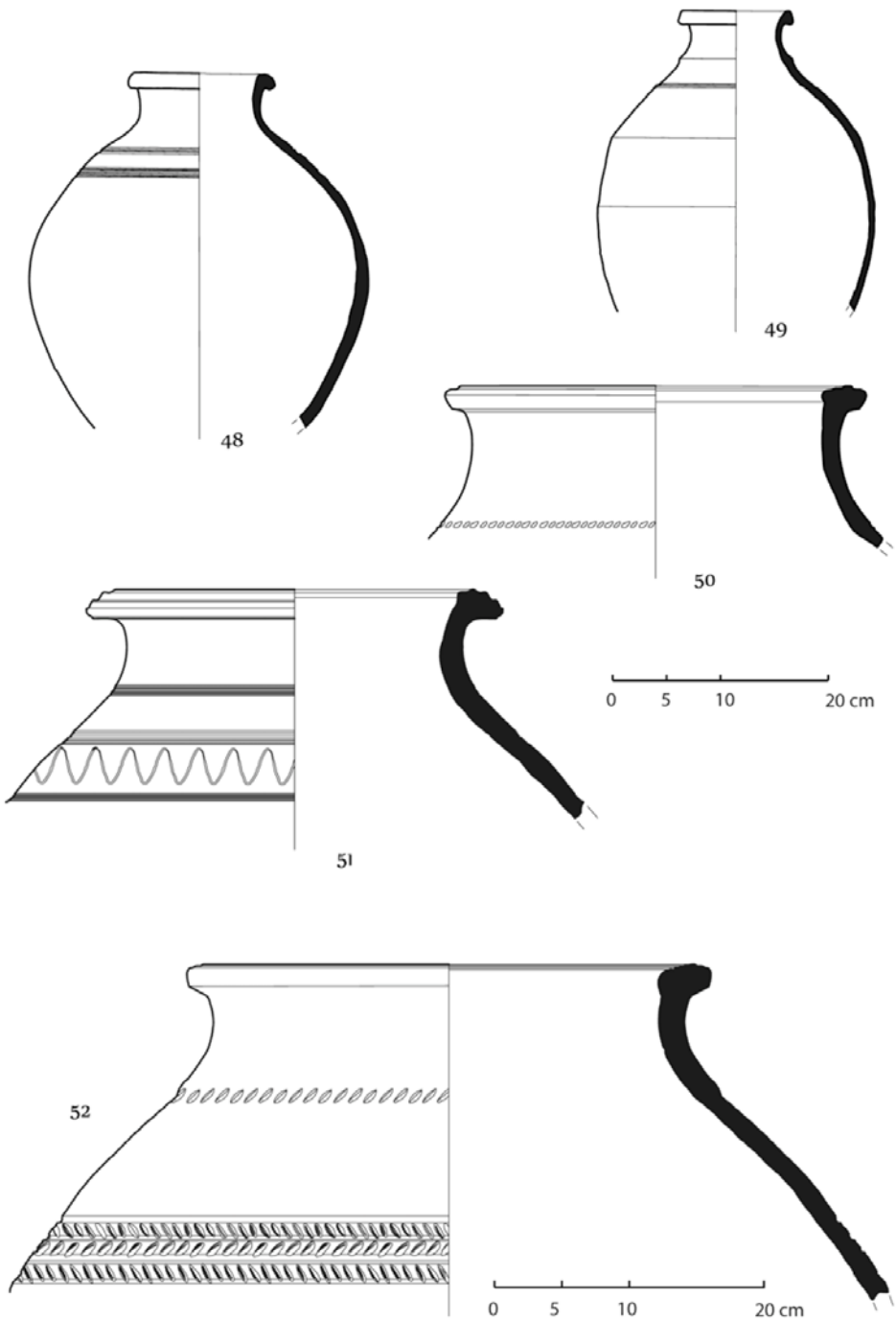

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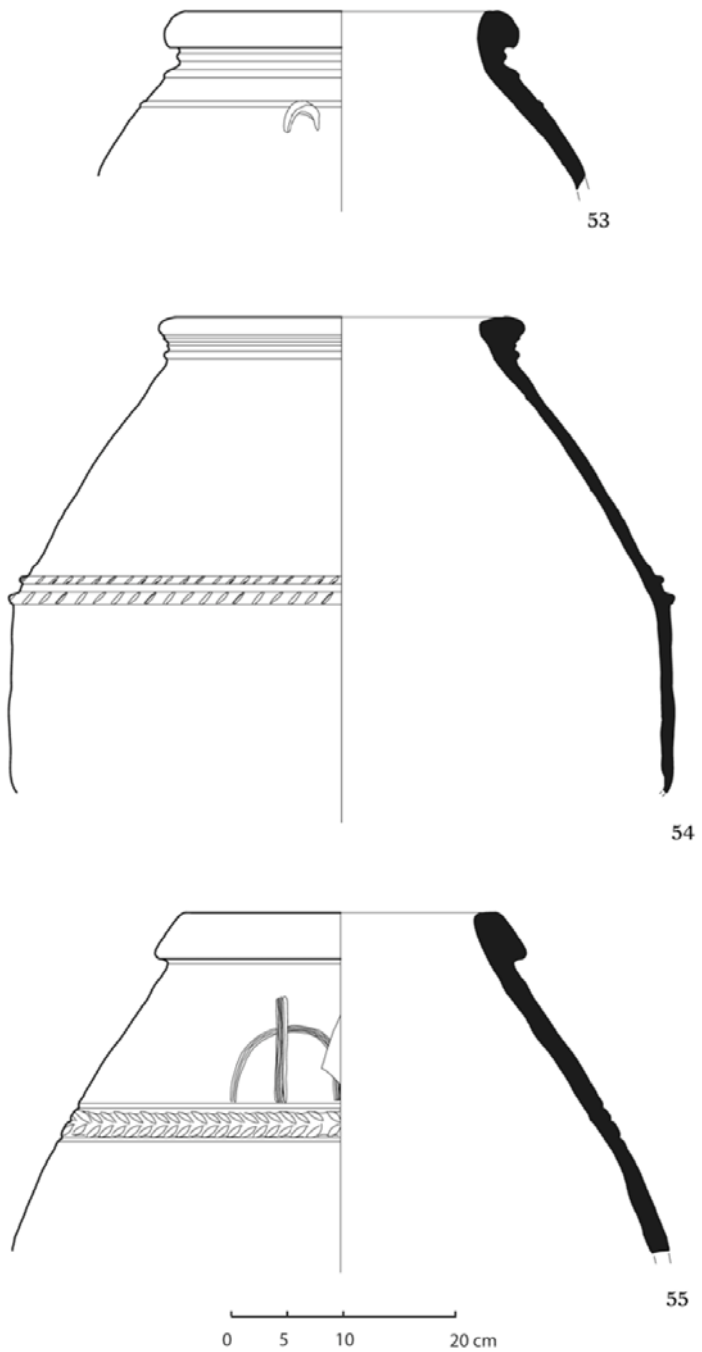

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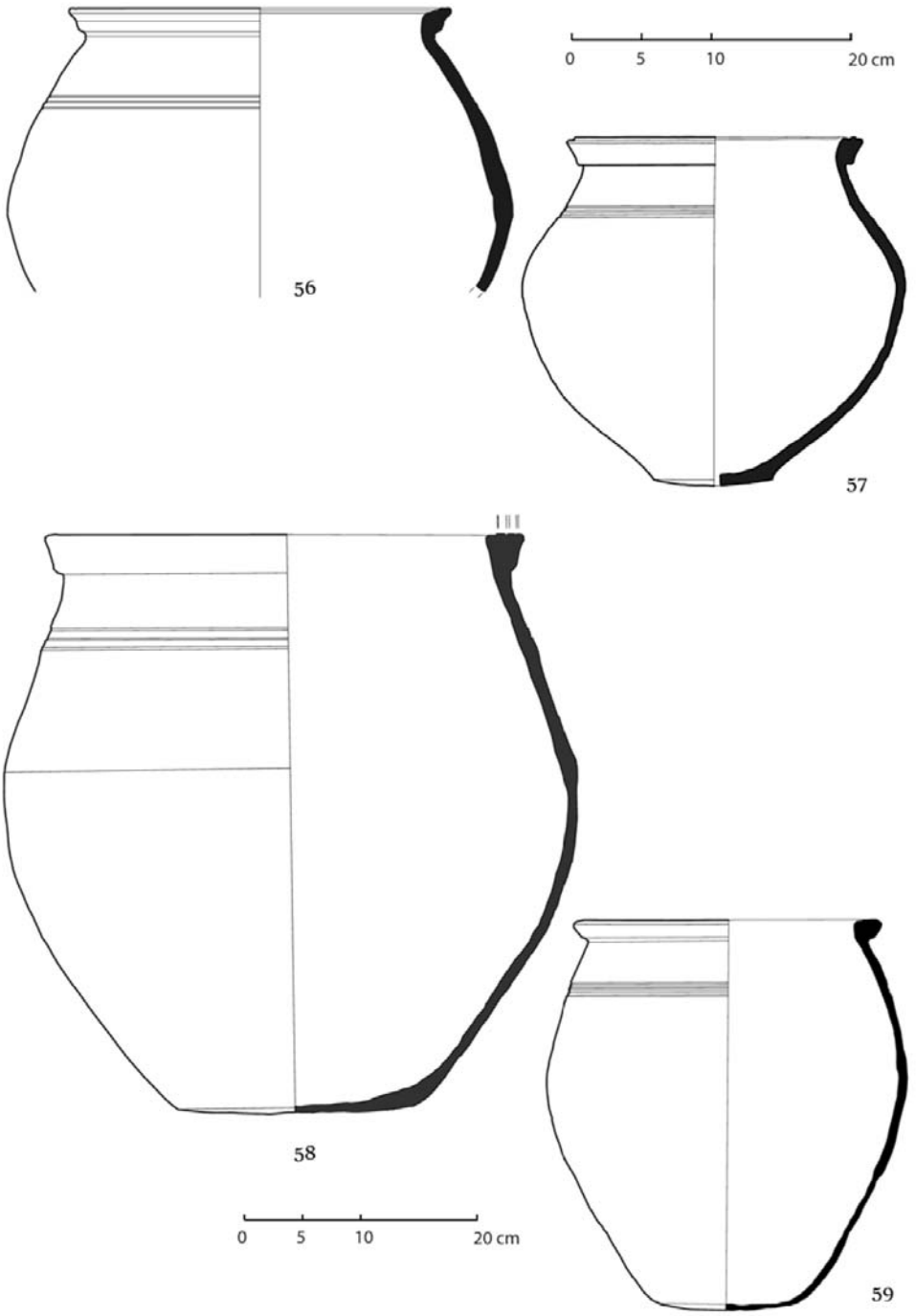

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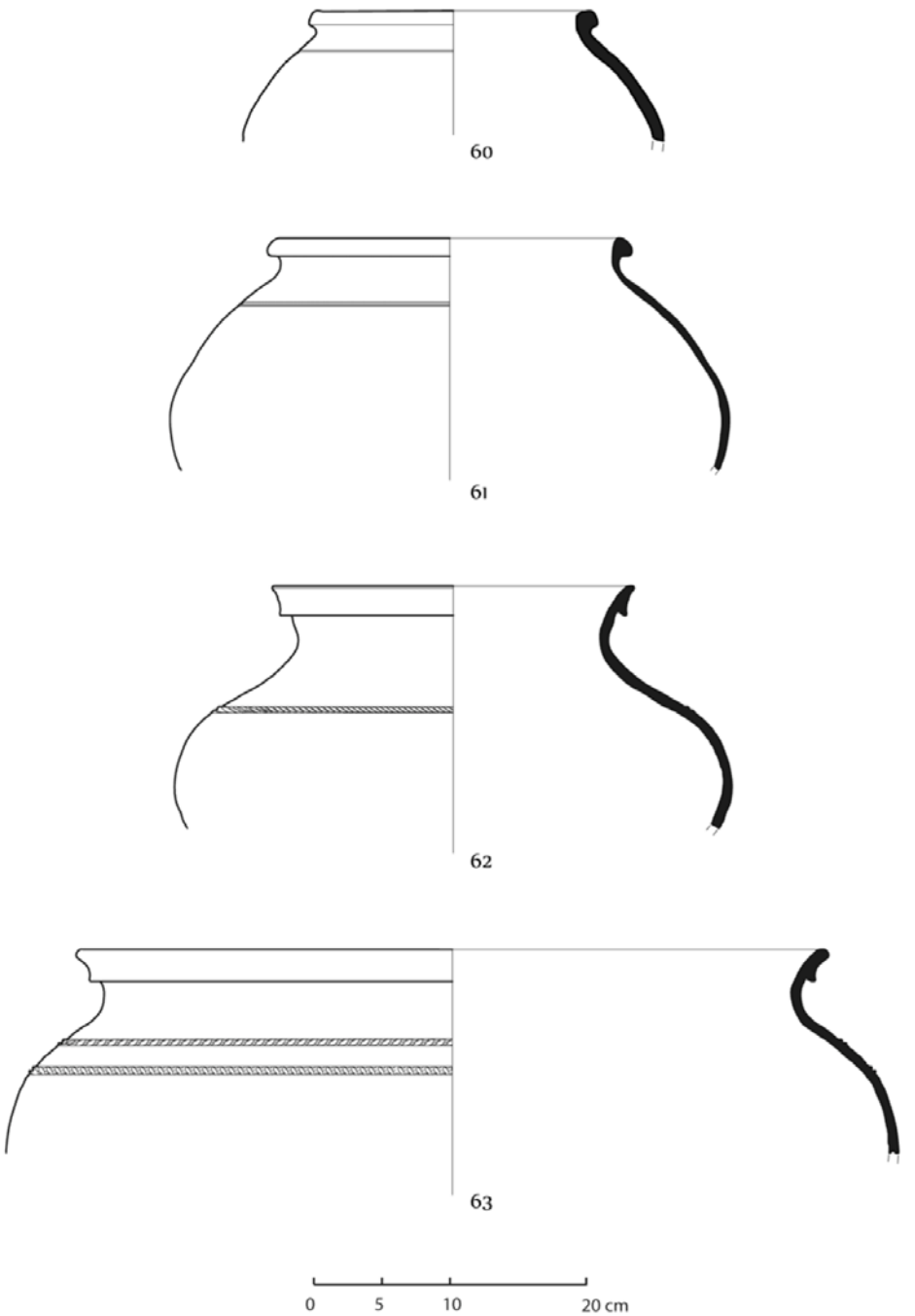

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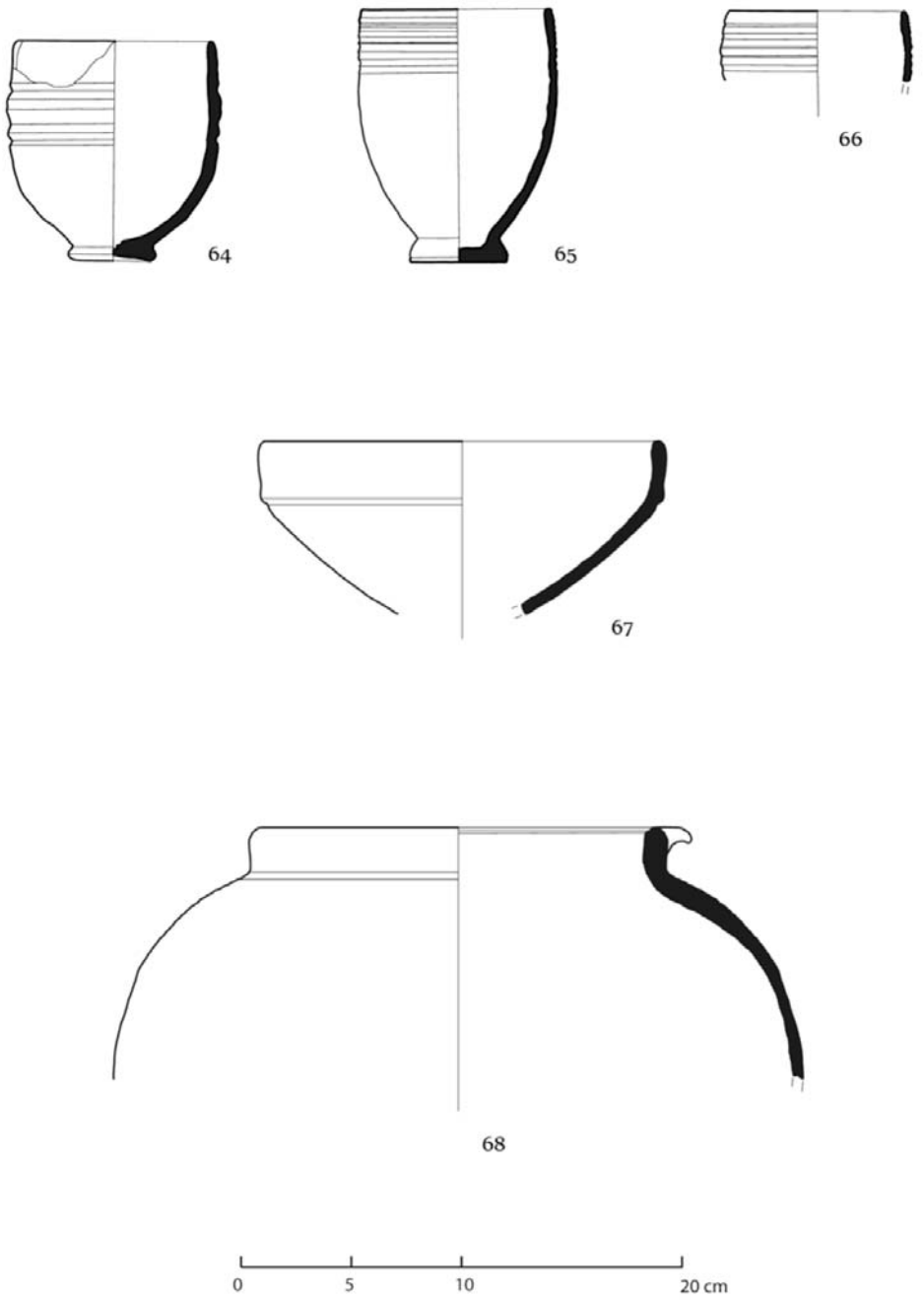

Planche 10.

ANATOLICA XXXIX, 2013

THE EARLIEST NEOLITHIC LEVELS AT BARCıN HÖYÜK, NORTHWESTERN TURKEY

Fokke A. Gerritsen, Rana Özbal and Laurens C. Thissen[1]

Abstract

This article presents the current state of research on the two earliest levels encountered at Barcın Höyük, Located in the Yenişehir Plain, Barcın Höyük is excavated as part of a long-term research project on early farming communities in the southern Marmara Region. Even though the exposures are small, excavations have uncovered notable differences between the phases termed VIe and VId. The two phases are compared in terms of pottery traditions, cooking practices, bone tools, beads and stone artifacts, ultimately allowing us to understand some of the key changes that were taking place among the earliest permanently settled communities of this region. The article places the stratigraphy and relative ceramic chronology into a chronological and regional context. Eleven radiocarbon determinations demonstrate that Barcın VIe and VId date to the 66th through 64th centuries BC.

INTRODUCTION

The study of the neolithization of northwestern Anatolia, and in particular of the Marmara Region, has gained momentum in the last ten years, with new evidence provided by ongoing excavations at Aktopraklık (Karul and Avcı, 2011) and Barcın Höyük, both situated at inland locations to the south of the Sea of Marmara, and at Yenikapı (Kiziltan 2010: 5-14; Algan et al. 2011) on its northeastern shore in Istanbul. Renewed interest in the question of the spread of farming to Europe, driven partly by the application of bioarchaeological techniques (Evershed et al., 2008; Lillie et al., 2012; Budd et al., 2013), has also directed attention to the region as a zone connecting Anatolia to the southeast and the Balkans to the northwest.

The Barcın Höyük excavations began in 2005 and stem from a long-term research project in the southeastern Marmara Region that started in 1987, led by the Netherlands Institute in Turkey and the Netherlands Institute for the Near East (Fig.1). The sequence documented in the course of this project at Ilıpınar (phases X through V) forms the backbone of our understanding of the development of material culture, architectural forms and subsistence practices during the first half of the sixth millennium BC in northwest Anatolia (Roodenberg, 1995; Roodenberg and Thissen, 2001; Roodenberg and Alpaslan Roodenberg, 2008). Soundings at Menteşe Höyük provided evidence for the presence of

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earlier sedentary farming communities, and the choice to excavate at Barcın Höyük followed from the ambition to elucidate the nature and development of such a settlement during the seventh millennium BC.

A report on the 2005 and 2006 seasons of excavations at Barcın Höyük appeared in this journal in 2008 (Roodenberg, van As & Alpaslan Roodenberg 2008). From 2007 onwards, the Barcın Höyük excavations have been directed by the first two authors of this article (Gerritsen and Özbal, 2009; Gerritsen, 2010; Özbal and Gerritsen, 2011; Gerritsen and Özbal, 2012; Gerritsen, Özbal, and Thissen, 2013). This report presents a brief overview of the phases of occupation at the site, and discusses the evidence for the earliest phases, VIe and VId, dating to the middle of the seventh millennium BC.

THE SITE AND ITS LANDSCAPE

Barcın Höyük is a small mounded site in the Yenişehir Valley east of Bursa. Its Neolithic occupation was recognized from surface finds during several surveys carried out from the 1950s onwards (Mellaart, 1955; French, 1967; Özdoğan, 1986). The site consists of two mounds separated by a low saddle (Fig. 2). The larger, eastern, mound has a diameter of ca. 120m and rises about 4 meters above the current level of the surrounding plain, the western mound is about 50 meters in diameter and 2.5 meters high. Excavations have focused on a 20 meter wide and 50 meter long north-south oriented strip on the southern flank of the eastern mound. Virgin soil has been reached in soundings in trenches L13 and L14, while excavations higher up on the slope aim to expose habitation levels over a larger horizontal extent.

The site is located on Quaternary deposits that fill the valley floor, consisting of silt, clay, sand and gravel. The hills surrounding the valley consist of pre-Neogene outcrops of schists, marble, trachyte, andesite and limestone, as well as siltstones, sandstones and gravel-stones of Neogene date (Topal et al., 2003; Yaltırak 2002; Künzel 2012). A modest stream, the Kocasu, drains the valley to the east. Until drainage canals were dug in the mid-20th century, the low-lying parts of the valley consisted of marshland and small lakes, following an older stage when the valley was presumably filled by a lake. A pollen core taken from a remnant of marshland in the Yenişehir valley has allowed a paleo-environmental reconstruction (Bottema and Woldring 1995; Bottema, Woldring and Kayan, 2001). An almost treeless landscape existed at the end of the last glacial period. From around 10,000 BP onwards, steppe plants were gradually replaced by deciduous trees such as hazel, beech, deciduous oak, lime and elm. This created an open forest landscape including plant species associated with open areas such as *centaurea*. A period of high *centaurea* values has been radiocarbon dated to 8500-6400 BP. This includes the period of Neolithic habitation at Barcın Höyük.

A geomorphological study of the direct surroundings of the site is ongoing. Two hand-augering campaigns have identified a sequence of sediments ranging from clays to fine gravels below and around the site. They indicate a complex history of sedimentary and hydrological changes, dominated by lacustrine and marsh conditions (Künzel 2012;

Groenhuijzen, in prep.). Clay deposits suitable for pottery making were encountered directly below the site.

GENERAL HISTORY OF OCCUPATION

The excavations have demonstrated evidence for habitation and other human activities at the site during several periods between the seventh millennium BC and the Byzantine period (not counting the current agricultural use). As a way of designating the different periods for which there is evidence for occupation, a division into six main periods is used (Table 1).

I	Byzantine
II	Hellenistic/Roman
III	Iron Age
IV	Bronze Age
V	Chalcolithic
VI	Neolithic

Table 1. Barcın Höyük. General periods of occupation.

It should be stressed that this does not represent an uninterrupted occupation sequence throughout these periods. On the contrary, the current evidence for periods I to V points to brief periods of occupation separated by long periods without evidence for habitation or other activities. What factors were responsible for the abandonment and renewed occupation events at the site is still a matter of research. The site's history may have been closely connected to changing water levels, shorelines, stream energy and sedimentation processes of the adjacent lake/marsh in the center of the Yenişehir Valley. In some periods, the location of Barcın Höyük may have been unattractive as a habitation site due to the high water level, possibly even surrounding the mound with water.

I Byzantine

Over 70 graves representing a Middle Byzantine cemetery have been encountered in trenches L10, L11, L12 and L13, with some additional graves in M11. It is likely that further graves were destroyed, as the upper southern slope was lowered by about 50 centimeters for agricultural purposes before excavations began, and the uppermost, poorly preserved graves were found directly below the plow zone. Surface scatters of roof tile fragments extend over of the saddle between the eastern and western mounds, suggesting that the cemetery extends further west.

The graves of this cemetery that were uncovered in 2005 and 2006 were published in Roodenberg (2009) and Aplaslan Roodenberg (2009).

II Hellenistic/Roman

In situ evidence for habitation during period II comes from the southeastern quadrant of trench L13. Here a southeast-northwest mudbrick wall was found, with a series of three loam-lined bins and one mudbrick-built installation abutting its southern face. The northern side of the wall was set against or very close to the artificially steepened slope of the prehistoric mound. This indicates that a form of terracing was created to make a level space for, presumably, a house. Pottery found on the indoor/courtyard floor and in the bins has not been studied in detail, but is dated preliminarily to the Hellenistic period.

In trench L14, to the south of this structure, several pits and a series of intercutting ditches date to period II. It is possible that one or more of the east-west or southeast-northwest ditches are contemporary with the architecture.

III Iron Age

A pit (or possibly several intersecting pits) with Neolithic material in trench L12 included sherds from a handmade vessel in a brittle, coarse grit tempered ware with strap handles. Although the identification of this vessel is uncertain, it may hint at an, otherwise elusive, occupation phase during the Iron Age.

IV Bronze Age

At least one phase of occupation, and possibly more, dates to the Early Bronze Age. A straight-sided pit with a diameter of approximately 2.60 m was encountered directly below the plow zone in trench M11. Excavated to a depth of 3.90 m below the surface, its bottom has not yet been reached. The fill of the pit is fairly rich in pottery, including numerous bowls in Yenişehir black-topped ware, beak-spouted jugs, and an occasional sherd of İnegöl Grey Ware. This assemblage gives a date for the pit and by extrapolation for this phase of period IV occupation in the second half of the third millennium BC, perhaps predating the very end of the millennium when İnegöl Grey Ware becomes dominant in regional assemblages (French 1967). Several other pits of Early Bronze Age date, much smaller and shallower, were found in trenches M10 and L10. A charcoal sample collected in 2005 and radiocarbon dated to 4125±40 BP (GrA-30013; 2 sigma: 2880-2570 cal. BC) suggests that there was also activity at the site in the earlier third millennium BC.

Scarce finds of Middle Bronze Age pottery were reported by Roodenberg and his team from trenches dug on the northern slope of the eastern mound. A radiocarbon dated charcoal sample points to human activity in the 1610-1400 cal BC time range (GrA-30902, 3210±40 BP).

V Chalcolithic

Fragmentary remains of a Late Chalcolithic settlement came to light in trenches L10, L11, M10, M11 and M13. A preliminary report on the settlement as it was excavated

until 2009 was published in Anatolica (Gerritsen et al. 2010). In ensuing years, several more ovens were found in trenches L10 and M13. They are of the common type of Late Chalcolithic ovens at Barcın Höyük, with a layer of potsherds embedded in the fired-clay floor. The two ovens found in L10 lie outside the area enclosed by the curved ditch found running through M10, L10 and L11, and make us rethink the suggestion made in the 2010 article, that this ditch represents a settlement boundary.

A sample collected from a Late Chalcolithic level in 2006 was radiocarbon dated to 3950-3650 cal. BC (GrA-30014; 4990±40 BP), indicating that the brief Late Chalcolithic occupation phase took place during the earlier part of the fourth millennium BC. Jürgen Seeher has recently compared the ceramic assemblage of Barcın Höyük with those of Late Chalcolithic Ilıpınar and Demircihüyük (Seeher 2012).

VI Neolithic

The longest continuous period of occupation at the site and the major mound formation processes took place during the Late Neolithic period. The deepest occupation level encountered to date, in the northeastern corner of trench L13, lies at 222.95 meters above sea level (asl). The top of the Neolithic deposits was encountered near the highest point of the mound in trenches M10 and M11 at around 227.80 m asl. This means that the maximum thickness of the Neolithic deposits is close to 5 meters.

Using a combination of stratigraphic observations and changes in ceramic technology and typology, the Neolithic occupation period has been divided into five phases, VIe being the oldest, VIa the youngest. It should be stressed that the transitions between these phases do not represent breaks in habitation; nor do they represent single building phases. It can be expected that with further excavation and analysis, it will be possible to subdivide these phases stratigraphically into sub-phases.

Current evidence, provided by the stratigraphy, pottery development and C14 dates, suggests a period of about 600 years of uninterrupted habitation. The end of the occupation is still poorly dated and understood, due to the disturbed nature of the latest Neolithic deposits. The two youngest C14 dates indicate that occupation continued until 6000 cal BC or briefly thereafter. This means that the end of occupation at Barcın Höyük is roughly contemporary with the first occupation at Ilıpınar on the Iznik Lake some 40 kilometers to the northwest. The start of Ilıpınar level X has been radiocarbon dated to 6000 BC (Roodenberg and Schier 2001).

Fig. 3 shows which period VI phases have been encountered in which trenches. The current article focuses on the soundings in trenches L13 and L14.

PHASE VIE

Deposits dating to phase VIe have been encountered in a 4,3 by 3,8 meter sounding in the northeast quadrant of trench L13, and in a ca. 3,6 by 4,0 meter area in the northeast quadrant of adjacent trench L14 (Fig. 4). Both trenches are located near the southern edge of the mound.

The occupation history in the sounding in trench L13 began with the cutting of a pit with irregular sides (locus 176), possibly in an existing channel or depression, ca. 1 m in depth (Fig. 5, 6a). Only part of this feature came to light along the northern side of the trench, another part of unknown spatial extent lies below unexcavated levels of L12, M12 and possibly M13. The clayey fill of this feature contained occasional large pieces of charred wood, and small and infrequent fragments of burnt loam, animal bone and charcoal dust. No ceramics were found. A piece of charcoal collected from close to the base of the pit or depression was radiocarbon dated (GrA-52848, 7750±40 BP, see below).

Even after largely filling up, the area remained depressed and probably always moist. Between c. 224.20 and 223.00, the east (Fig. 5) and west sections of the L13 sounding show layers dipping down towards the north. The area appears to have been used for an extended period of time primarily for garbage disposal, leading to thick a deposit built up of thin layers. The finds assemblage from these layers consists of high numbers of fist-sized broken stones (Fig. 6b, 7), large quantities of heavily fragmented animal bone, and initially extremely low but towards the upper layers of VIe increasing numbers of ceramic sherds (see below). Most layers are rich in charcoal and ash, confirming the interpretation as an area where garbage from nearby cooking activities was dumped. There are no architectural features or installations in the area belonging to phase VIe, but several superimposed surfaces appeared in the southern part of the sounding, on the slope up and away from the depression. Presumably, these surfaces (loci L13-177, 174, 171, 170) belong to occupation spaces just outside the sounding. They were created by putting down a layer, between 0,5 and 2,5 cm thick, of soft, white lime plaster.

The burial of an adult female (L13-166, fig. 6b) was found directly above virgin soil (Alpaslan Roodenberg, Gerritsen and Özbal, this issue).

Further south in trench L14, the first traces of human occupation were found on virgin soil at c. 224,00 m. The features recovered from the base of trench L14 were difficult to interpret (Fig. 8). A northern segment yielded an irregular constellation of some 10 circular and elongated discolorations, possibly postholes dug into virtually clean soil. To the south, a strip of about 1,5 meter wide included a small fire pit (locus L14-201) dug into virgin soil. This yielded a radiocarbon date of 7730±30 BP (see below), contemporary with the start of activity documented in L13. An area of yellow-orange loam, of unknown shape and purpose incorporated several postholes and two fire-related installations filled with a sequence of thin ashy lenses. Dug into the embankment were a burial of a child (L14-200, Alpaslan Roodenberg, Gerritsen, Özbal, this issue) and an infant burial (L14-202). One of the problems in understanding these features is that they were cut by a channel dated to period II. No Neolithic remains were preserved to the south of this channel.

The stones mentioned above are an interesting feature of the VIe finds assemblage. A variety of rock types are represented (Fig. 7). They must have been carried to the site from outcrops in the hills several kilometers to the north. They do not show traces of working but all have irregular angular fractures. Our current hypothesis is that they were used as cooking stones (Thoms 2008; Crandell n.d.). Repeated heating and rapid cooling (for example by placing them in cold water) would have resulted in the kinds of fractures shown by these stones.

PHASE VID

The transition from VIe to VId is defined provisionally by the change in pottery from schist-tempered wares to calcite-tempered wares (see below). This transition has been documented so far only in the sounding in L13. On current evidence, given that reliable contexts with schist as well as calcite tempered wares occur only in a thin band of layers (lots within loci 153 and 158; between 223.80 and 223.44 in the SE quadrant of the sounding and between 223.54 and 223.32 in the NE quadrant due to the sloping layers), there appears to have been at most a brief transition period during which both wares were produced and used.

A possible wall (locus 155, el. 223.80-223.70) running approximately east-west marks the start of phase VId stratigraphically (Fig 9a). It was recognized as a ca. 30 cm wide band of soil drying out faster than the surrounding deposits and could be seen only with difficulty in the sections of the sounding. Against the northern, presumably outside, face of the wall a thick layer of soft lime plaster extended about 2.5 meters to the north (locus 156), continuing the pattern already observed for phase VIe and emphasizing the overall continuity of habitation between VIe and VId. No indoor surface could be recognized in the narrow space between the wall and the south baulk of the sounding.

The VId layers postdating this wall yielded no further architectural structures. The area continued to fill up gradually with garbage-rich material, including large quantities of bone, ash and charcoal. Potsherds occur in much larger numbers than in VIe (see also the section on the pottery below). Significantly, the fist-sized stones that were abundant in VIe levels are practically absent in phase VId. Over the course of time (representing about 50 centimeter in depth) nine small fire pits or were dug into the ground (Fig. 9b). They were irregularly round or oval in plan, between 30 and 70 cm in diameter or maximum extent and with a maximum depth of 20 cm. The sides were not lined but sometimes had become orange to brown and fire-hardened. Only two of them (136 and 142) contained pieces of burnt loam that may have belonged to a built-up structure above the pit. Of these, locus 142 yielded a C14 date of 7395±45 BP (see below). Fragments of several pebble covered surfaces are related to the use of the area as an outdoor activity area.

The grave (locus 129) of an old man lying on his back is associated with the later levels of VId. Its burial pit cut through a hearth or fire pit (locus 136) and a small segment of a pebble covered surface (locus 140). A single large posthole (locus 138) positioned near the head end of the burial pit may have been for a kind of grave marker.

The latest levels of phase VId have appeared also in the southern part of the L13 sounding, below period II architecture and cut into by pits of this period (Fig. 4, 5). The deposits included a few fragmentary surfaces. In general, deposits here were less rich in garbage than the northern part of L13 and yielded limited material. At ca. 224.80-225.00, changes in the pottery indicate the transition to phase VIc. At this elevation, however, the Neolithic levels were severely disturbed by pits from periods II and possibly IV, making a detailed assessment of the continuation of the habitation sequence difficult. Better results regarding the VId-VIe transition can be expected from other locations, such as trenches M10 and M11.

Phase VId occupation, including architecture and a courtyard, has also been encountered in trench M10. This will be published separately when excavations have proceeded further.

POTTERY FROM PHASES VIE AND VID

Phase VIe pottery

The phase VIe deposits yielded a small assemblage of ceramics. In 2011, 104 sherds were found in L13 (69 body sherds, 35 diagnostics), having a total weight of 2,600 g (average sherd weight of 25 g) (Table 2)). An additional 49 sherds came from lots designated provisionally as 'VIe-VId transitional', and a small number of (abraded) pieces came up in later contexts. The small size of the assemblage is due to the small exposures reached so far. But additionally, the decreasing frequency of sherds in the lower excavated lots of L13 and the very low frequency in L14 must have been caused by a low intensity production and use of pottery during this phase.

Phase	N	Of which n diagnostics	Weight (g)	ASW (g)	Minimum vessels represented
VId	1,874	292	11,699	6.95	90
VIe/VId transition	49	16	741	15.12	5
VIe	104	35	2,600	25.00	22
Total	*2,027*	*343*	*15,040*		*117*

Table 2. Barcın Höyük, phases VIe and VId from trench L13. Sherd amounts and weights per phase.

Technology and form concepts

Over 90% of the VIe pottery is made of primary clay, which may be marly, to which abundant, crushed and powdered green schist has been added.[2] The clay is not very well kneaded and leaves voids when breaking it afresh. Fractures are rarely along coil breaks, suggesting that plasticity of the clay was good; bases, however, are often broken at the point where the wall coils were added. The schist non-plastics are platy or subangular, fairly well sorted and of coarse size (between 1 and 2 mm). Shiny black slate particles of fine to medium size are present in moderate quantities, as is sparse, subangular/subrounded quartz and subrounded red iron nodules of fine to medium size. The schist is deliberately added and the silvery-gold, pindrop-like mica shimmer visible in the paste, on fresh breaks and on the surfaces must be due to the ground-up schist

[2] A variant fabric sporadically attested contains lesser amounts of schist within a slightly calcareous paste. Occasionally, minor additions of subangular quartz grains are present, which may be accidental. This fabric seems to gain in popularity in the VIe/VId transitional stage.

powder generously mixed with the clay matrix. The soft schist fabric[3] results in a soft, slightly 'soapy' feeling ware, which is easily abraded, and it produces fine fractures when freshly broken. Green schist stones were obviously collected in the surrounding hills (schist outcrops are present in the hills to the N and W of the site and several such stones were found in the L13 archaeological deposit). The quartz and red iron nodules, given their low degree of angularity, sparse amount and ill-sorted aspect, will have been natural contaminations in the clay.

The Barcın potters started out from a flat base slab, onto which they built up the vessels by using coils. A large rim sherd (Fig. 17:4; M10 intrusion) shows that coils have been applied from the inside in order to create the desired inverted direction and ultimate holemouth shape. The coils were subsequently drawn up from the outside while working from the inside, as is evident from the orientation of the coil separations. Vessel profiles, general build-up process and the way the walls shift only slightly in thickness provide evidence that no secondary forming techniques were used in the VIe assemblage. Walls are smooth and regular in thickness, but thickening towards the base, the lower bodies as much receiving surplus clay from the base as adding to the vessel's stability. Scraping and smoothing of vessel walls was probably carried out using scrapers made of sherds chipped into a roundel shape (Fig. 21:1). Wall thickness measured on body sherds and rims varies between 5 and 14 mm, but clusters between 7 and 10 mm, while bases concentrate between 12 and 14 mm in thickness. Lips were finished in various ways, either being rounded, pared down on top resulting in squarish cross-sections (Fig. 17:1,2,5,7), or else are tapering to a pointed rim (Fig. 17:3,4). No complete examples of vessels have been retrieved yet. But overlapping profiles from two different vessels suggest a form concept relying on two inverted cones with smoothly curving inflexion points high on the body (Fig. 11). Characteristic is the contrast between the gently convex outline of the exterior rim zone and the straight inside outline.

The lower body sherd in the reconstruction on figure 10 is close to the base zone; the base itself would start immediately at the lower fracture, and the total vessel height is slightly less than the mouth orifice. This reconstruction results in a vessel with good stability and is still portable; due to the large orifice and high shoulder it is also easily accessible. With mouth diameters varying between 20 and 25 cm, widest diameters on the shoulder between 23 and 27 cm, bases averaging at 16 cm in diameter, and heights less or perhaps equal to orifices, the maximum capacities of such vessels are at about 3 liters. Solid lug handles were placed at about the inflexion points on the shoulders. Probably they occurred in pairs per vessel, placed opposite each other. The number of rims and lugs is low, but the estimated vessel equivalents make it likely that all holemouth pots were fixed with lugs. A few other vessel categories underlie similar form and proportion conceptions but have an interrupted *chaîne opératoire*, in that the final built-up of the shoulder and rim zone was simply left out to create more open, deep bowls and hemispherical bowls (Fig. 17:1,2).

[3] Fabric (another term for 'paste') is here understood as the matrix (the clay minerals <2µm) together with the inclusions or 'non-plastics' >2µm, taken to be any large features including voids and pores.

Immediately after build-up and initial smoothing, vessel exteriors were coated with what seems to have been a thin, diluted clay slip suspension of the same color as the clay; insides were carefully smoothed but remained unburnished. When the vessel had dried to a leather-hard state, it was given a low to moderate burnish up to a very dull shine, with help of pebbles, bone tools, or a soft cloth. The soft texture of the paste, the cursory burnish and the brief firing method combine to result in occasionally brittle sherds easily abraded during post-depositional processes. Burnishing is therefore often eroded off the sherd surfaces, exposing the subsurface fabric texture. The firing atmosphere was neutral to oxidizing, and only three sherds are present having thick, dark grey colored center cores between thin margins. The majority of exterior colors concentrate on the lower chroma values of 10YR between values 10YR 4/ and 10YR 6/ (from dark grey, dark greyish brown to grey, greyish brown, light brownish grey to pale brown and (light) yellowish brown). Typical colors are 10YR 6/3 (pale brown) and 10YR 5/3 (brown). Interior colors either are of the same color or just one or two chroma values darker than exterior colors, while staying within the same values. Strong contrasts between inside and outside color are not observed. Core colors are mostly dark greyish brown (10YR 4/2), but occasionally have an almost greenish tinge like Gley 10Y 4/1 (dark greenish grey).

Special forms include ‘tables’ or ‘boxes’ on four legs, which are clearly prototypes of the later, so-called Fikirtepe boxes (Fig. 17:9,10). An almost complete example demonstrates that the early type was undecorated and has short square legs instead of the longer, rounded ones of later phases. Two legs are preserved, and if we assume that the tab handle was set symmetrically to the side, the box must have been rectangular in plan rather than square. The single tab handle is also prototypical and clearly marks these tables as representing a long ongoing tradition, the start of which may very well reside in these early Barcın deposits. The rims of these boxes all are tapering from the inside to a pointed lip. Another special form is a lid made of flat disk of 13 cm in diameter. A circular ledge on side forms a circle of 11 cm in diameter (Fig. 17:12). Another possible lid has a handle attachment place offset 3 cm from the rim edge (Fig. 17:13). A large lug handle from the same lot but not linking helps one conceptualizing early Barcın ceramic lids (Fig. 17:14). The single decorated sherd present in the current VIe corpus has a snake-like shallow appliqué (Fig. 17:11). The position of the decoration can however not be determined. Incised decorations are absent from the assemblage.

Considerations about function

A few observations hint at the use-functions of early Barcın ceramic containers. Many of the base fragments preserved have use-wear traces on their undersides in the form of surface abrasion, scratches and burnish damage. Base sherds show attrition marks on their insides, and smudge traces on the lower vessel zones, though not on the base interiors themselves. At least one holemouth rim has smudge traces on the inside rim zone (Figure 12). Finally, several base parts have cracks on their inside surfaces (Figures 13, 14). These attrition traces suggest the vessels were exposed to repeated heat treatment.

Additionally, the wide orifices, the care to ensure stability, and the presence of solid lugs high on the vessels, all suggest that one of the main functions of these early ceramic containers was as cooking pots. With easily accessible content, the sturdy lugs

were obviously necessary to handle the hot vessels heavy with food. While the pots may have been cooked with by way of direct heating, an alternative hypothesis brings into play the fire-cracked stones found in profusion in the same deposits that yield the ceramics (see above). The center of gravity being high on the vessels, and lower bodies tapering towards the bases, this design would collect cooking stones in the conical base zones, simultaneously concentrating the heat naturally and directing it upward. The wide orifice would help in placing and removing the stones.

Phase VId pottery

In trench L13, overlying VIe and a tentative transitional phase VIe/VId,[4] a new departure in terms of pottery making is represented by the phase VId assemblage. Also in terms of quantity, the change is rather abrupt. In a deposit of approximately 1.2 m in thickness 1,874 sherds were retrieved (seasons 2010 and 2011), weighing 11.7 kg (ASW of 6.95 g). Fragmentation is more severe than was the case for VIe – the VId material being much thinner walled; simultaneously VId vessels are stronger, less brittle than their predecessors. With deposition and post-depositional processes approximately equal between VIe and VId in trench L13, sheer quantity is the distinguishing factor. Measured along the (minimum) number of vessels represented, VId pottery counts 90 individual vessels versus 22 for VIe (Table 3).

Phase	N	Approx. soil matrix (cubic m)	Sherd count per cubic meter	Minimum vessels represented	MVR per cubic meter
VId	1,874	c. 14.6	128	90	6.2
VIe + transition	153	c. 10.8	14	27	2.5
Total	*2,027*			*117*	

Table 3. Barcın Höyük, phases VIe and VId sherd count and Minimum Vessels Represented for VId and VIe/transition VIe-VId.

Technology and form concepts

Rather abruptly, Barcın potters replaced schist for crushed crystalline calcite for tempering their clays. Calcite and limestone is ubiquitously present in the hills surrounding the Yenişehir Plain. Possibly replicating older preparation methods, calcite rocks were collected, brought to the site and crushed to a powder. This seems to have been sieved in order to get equally sized particles between 0.5 and 1 mm, and added to the almost pure, marly clay body in well-sorted, abundant quantities. Individual particles are of angular shape, opaque, and whitish in color. This fabric creates fine, regular fractures.

[4] Discussion of which is postponed until more data are assembled to define this stage. A few much less thick walled holemouth rims of smaller overall size (diameters between 13 and 15 cm) seem to move away from the bold VIe concepts and suggest being transitional towards early VId restricted bowls; they have slightly different proportions with the inflexion point lower on the body, and are preferably tempered in a finer, less abundant schist ware (Fig. 18:1-5).

Despite the non-plastics density, the matrix was of a high quality in terms of plasticity, allowing the use of the hammer-and-anvil technique to obtain thin vessel walls without cracks appearing in the process. Large lug handles could be applied to these thin vessel walls without immediately breaking off. Primary forming techniques continued from VIe, but the coils are thinned out either by drawing them up or by the hammer-and-anvil technique – fractures are therefore rarely along the coils themselves. This secondary forming technique, one of the innovations in VId, was mostly applied to the lower zones of cooking vessels in order to acquire slightly S-shaped bodies that move the center of gravity towards the base, and enlarge the stability of the vessel. Contrasted with VIe, vessel walls become significantly thinner in VId, now clustering between 5 and 7 mm in thickness. Notably, bases are just as thin as the up-going walls, suggesting 'thinness' was part of the ideational concept of VId pottery making (in contrast to the preceding phase).

When completed, the outsides of vessels, including their bases, were coated with a thin clay slip, which, when leather-hard, were carefully and highly burnished, often to the degree that no individual burnish strokes are visible, the surface acquiring a very smooth luster. The degree of smoothing and burnishing was rather determined by the peculiarities of the surfaces themselves: handles and legs are significantly less well burnished than larger, homogeneous surfaces because they were less well workable. The insides of rim zones were highly burnished as well, but the lower portions of vessel interiors were usually left unburnished, though carefully smoothed to obtain even surfaces, except for handheld cups, which have their interiors slipped and burnished as well.

Almost overnight, Barcın potters reached an amazing mastery over material, technique and form. There are no mistakes. Vessel lips are carefully finished, occasionally square in section, but more often typically rounded on the interior side with a slight 'edge' toward the exterior, the whole carrying fine burnish striations completing this zone. This lip finish features on many rim sherds, suggesting the technique was part of a 'canon.' Handles are manufactured in a way that can be detected in all subsequent stages at Barcın Höyük. Simply consisting of a coil of prepared clay, tempered with calcite, they were attached to a scored attachment place on the vessel wall, and smoothed to the vessel with surplus clay, which is then burnished. The side of the handle turned toward the vessel wall remains unburnished since unreachable with a tool; top and bottom sides are burnished in the usual way. The method of scoring secures a strong contact zone between vessel and handle and was a feature probably very necessary for the function the vessels were thought for primarily, i.e., cooking involving manipulation of hot and heavy vessels from and to the fire.

VId pottery is characterized by its bright colors, due to the marly, pure clay, and to the oxidizing firing atmosphere applied (cf. Shepard 1965:16f.).[5] Firing was certainly below 750° C, since the calcium carbonate particles remained relatively inert and stable. Among the typical colors are cream (7.5YR 7/3-7/4, 'pink'), light grey (10YR 7/1-7/2, 'light grey,' -7/3, 'reddish pale brown'), and slightly less manifest, pink (peachy) (2.5YR

[5] Clay sourcing and replication tests have not yet been part of the ceramic program of the Barcın project. However, a deep sounding in L13 reaching virgin soil produced very clean marly clay of excellent workability.

7/4-6/4, 'light reddish brown') and red (2.5YR 4/4-4/6, 'reddish brown'-'red'). Fracture colors are of a similar shade as the exterior surfaces, *e.g.*, cream and light grey pottery has cream or pale brown fractures reddish pottery fractures are brick red. Most characteristic, however, are brick red or pale red fractures that are fully oxidized. Fracture color zonation is rare, but if occurring appears as a (light) greyish small center zone. Inside colors are similar to the outsides, but among the red group in particular interiors may occur that are grey to very dark grey colored. It is to be considered that the very distinctive cream-colored vessels were produced in imitation (more apt perhaps: in emulation) of stone bowls, fragments of which are retrieved from Barcın VId deposits (see below). Surfaces of cream vessels are particularly smooth, wall thickness is very even, and burnish traces are almost invisible, all these factors contributing to a strong resemblance with stone vessels.

Form

The new pottery making methods enabled new forms and distinct categories, although one has to assume that potters were inspired by what went on before.[6] Characteristic categories created within the new technological paradigm of VId include slightly S-profile, vertical walled, flat-based cups, their diameters ranging between 9 and 13 cm, and with heights estimated at about two-third of that diameter (Fig. 18:6,7). Deep medium-sized bowls seem to constitute another, as yet indistinct category (Fig. 18:8); deep bowls with incurving orifices from trench M10 (2012 season) are fitted out with a vertically pierced knob, which originally might have occurred in pairs on such vessels (Fig. 18:14,15). A distinct new basic-level category consists of holemouth bowls, vessels with restricted rims like holemouths or having small vertical collars (Fig. 18:10-13). Extended profiles are yet lacking, but bodies were globular and likely achieved with the hammer-and-anvil technique. Their rims are typically trimmed on top, creating square lips. Diameters range from 8 to 17 cm, but average around 13 cm. These holemouth bowls are exceptionally well made, and the 4-6 mm walls are very smooth and regular. They probably went without handles, as such distinct from holemouth pots.

Closed forms include various pot types, ranging from holemouths to slightly S-profiled vessels (Fig. 19:1,2,4). Most pots seem to have been fitted out with horizontally placed lug handles, set high on the shoulders, 3-4 cm below the rims, and probably occurring in twos on each pot; a few holemouths have solid lugs set close to the rim. Lips are simply rounded, pointed or rounded on the inside and given a little edge on the outside (Fig. 19:4). The insides of some pots show attrition traces and a slightly pitted surface due to the partly burning out of the calcite particles; several of them also have soot-blackened insides starting on the shoulder zone (Figures 15, 16).

[6] Even though VIe and VId pottery demonstrate strong contrasts, we tend to think both assemblages still as connected by tradition, memory and expertise. Categories will have been 'redesigned' and re-conceptualized, just as technological choices were recalibrated. Important tempers were discarded and replaced, but their preparation was similar. Surface treatments of vessels' in- and outsides were modified in degree only; firing methods may have been more controlled but built on acquired knowledge.

Phase VId 'special forms' are never frequent in the assemblage, and include various basic-level categories that were likely treated as diverse categories in the 7th millennium cal BC as well. Boxes continue concepts from phase VIe, and one of them is decorated with deep slashes in a zigzag pattern, and is closer to VIe than to the later 'Fikirtepe' boxes (Fig. 19:8). No traces of white fill are found, and we have no evidence yet that this form of decoration was in use this early. A flat-topped, rudimentary ledge rim vessel with cursory incisions in a geometric pattern approaches 'Fikirtepe' style geometry, but still lacks any trace of a white-paste fill (Fig. 19:9). Painted decoration occurs sporadically, and is not attested from phase VIe or from later phases at the site.[7] A large fragment of a holemouth pot has red-painted decoration applied in vertical bands from the rim, which is also painted (Fig. 19:7). The paint appears 'wiped out' at the borders probably due to severe burnishing done at a stage where the paint was not yet quite dry. The vessel is made in the local calcite fabric.

VIE AND VID SMALL FINDS

The small finds from phase VIe and VId at Barcın Höyük are primarily of bone although objects of stone, shell and clay/ceramic also occur. This section does not intend to provide a final report on these finds but rather offers some preliminary observations. Overall, the differences between the two phases in most artifact categories are minor but some categories like beads, stone objects and bone spatulas and points do show notable changes through time. When assessing artifact numbers, the reader should keep in mind that the excavated volume of soil for phase VId is two to three times larger than that for VIe.

Beads

Two different raw materials were used for bead production: shell and stone. Notable is the fact that stone beads are absent from the earliest levels even though shell beads are prolific. The distribution of the raw material categories are listed in Table 4:

Phase	Shell Beads/Pendants	Stone Beads
VId	3	8
Transitional	5	1
VIe	39	0

Table 4. Table 4. Barcın Höyük, phases VIe and VId beads.

Among the shell beads in VIe, one finds cut or largely intact marine Dentalium sp. shells (Fig. 20:1). Dentalium is the most common raw material for shell beads in this

[7] From the 2012 season more phase VId red painted pottery was excavated from trench M10, and a large rectangular box of unbaked clay was washed all over with a red pigment.

phase. The few pierced freshwater mollusks like Unio sp. shells discovered could have been pendants or pendant fragments.

In VId, with the exception of one stone tubular bead, the stone beads that begin to appear in this phase and in the transitional level between VIe and VId are disc shaped (Fig. 20.2-4). A variety of stones types ranging from white to grey and dark green were used in production. The perforation on all seven of these beads is straight and evenly made, and a careful examination shows concentric parallel striations resulting from drilling. There appear to be two sizes of disk beads in phase VId, based on this small case study.[8] Those with a diameter close to 1 cm have a perforation diameter of 3 mm (e.g. Fig. 20:4) while perforation diameter of those that are 6 mm across is often slightly smaller at around 2.5 mm (e.g. Fig. 20.2). Overall, these data suggest that beads and pendants were important for the inhabitants of Barcın Höyük from the very earliest levels onwards.

Stone tools

Stone is not completely absent from VIe despite the lack of stone beads in this phase. Excavations yielded a number of stone tools, even in the earliest levels in VIe. Interestingly, with the exception of a hammer stone, the earliest stone objects are typically elongated (Fig. 21:1-2). It is not certain whether these artifacts are chisel-type tools or whether their elongated form is a result of how they were ultimately hafted to a handle. Figure 21:2 illustrates how both ends of the object were chipped, possibly to be placed in a hafting system. Of the seven such elongated objects, two were pierced, perhaps because they served a different purpose. Notable is the pierced object illustrated in figure 21:3. The drill hole is bi-conical in shape as the drilling has been made from both sides. The drilled section protrudes from the shaft, giving the appearance of a head, perhaps of a phallus or a snake. The butt end of the object tapers to a point. The object was made from a very soft limestone, the surface of which is now deteriorating. This is notable because the raw material used for the tools in VIe (save one) is all relatively soft, even though a variety of stone types ranging from probable schist to limestone and sandstone have been utilized.

The lack of harder stones for tools and the lack of stone beads altogether in phase VIe implies either that the inhabitants had no access to such materials or that they perhaps lacked the technology to work them. Indeed, in level VId stone beads appear together with other stone tools including true celts and even stone bowl fragments, as mentioned above, although cleaving tools do continue in a slightly different form. Figure 21:4, dating to phase VId, for example, is not only shorter than similar objects in VIe but has also been produced from a harder stone.

[8] Fig. 20:3 is the only bead from the transitional phase and with an outer diameter of 12 mm is slightly larger than those in Phase VId.

Ceramic and clay objects

Another object category that appears in the earliest levels and continues on into later levels is the worked sherds. In phase VIe these are all in the form of sherd disks or roundels and excavations yielded a total of four, three of which are depicted in figure 22:1. As they are made from recycled sherds, their inclusions are identical to those described above for the phase VIe pottery. The sherd disks from this phase may have functioned as scrapers and usually have a diameter of around 4-5 cm and are around 1 cm thick. Worked sherds continue into phase VId and are, given that there are more overall ceramics in this phase, not surprisingly, more prolific. While three of the ten worked sherds in phase VId are roughly round in shape, many are broken and irregular fragments of pottery that show signs of abrasion, indicating that they were likely used as scrapers.

In addition to ceramics, sling pellets and figurines are two other object categories produced from clay. Only one sling pellet was found in phase VIe (in the youngest level of the phase, see figure 22:2). With two fragmentary and three complete sling pellets there may be a slight increase in number by level VId. Other clay artifacts like figurines are also not common but seem to be part of the assemblage from the earliest levels onwards. The animal figurine depicted in figure 22:3 comes from an early context of VIe and has the same schist inclusions that were typically added to the ceramics of this phase. Although not intact, two fragmentary animal figurines were found in VId. In addition to recognizable figurines and their fragments, specially phase VIe yielded many clay lumps and amorphous fragments that were difficult to classify or identify.

Bone tools

The most prolific category of small finds at Barcın Höyük is the bone tools. Excavations from phases VId and VIe yielded 85 worked bone objects including bone points, bone spoons, spatulas and smoothers, pierced bone objects like buckles and pendants as well as fish hooks. Their distribution is indicated in Table 5.

Phase	Points	Spatulas	Spoons	Fish hooks	Pierced objects	Smoothers	Other
VId	36	6	3	2	4	2	0
Transitional	4	0	0	2	0	0	0
VIe	14	0	3	0	3	2	4

Table 5. Barcın Höyük, phases VIe and VId bone implements. Other objects include a possible spool, a bead blank and two objects resembling spatulas but different in style.

The actual worked bone finds would have been much higher for each phase because very fragmentary pieces of worked bone are not considered objects and have not been added to these values. Like in other small finds groups, one notices a difference between the two phases in question for bone as well. Spatulas, for example, are absent from VIe and bone points show differences across the two phases.

Bone points with both rounded and pointed tips, are the most common bone artifact and comprise just over half the one finds in VIe and more than two thirds of those in VId (e.g. Figure 23, 24:1). This category subsumes implements of varying lengths including long pins (e.g. Fig. 24:1) and relatively short awl type artifacts (e.g. Fig. 23:4, 23:7). The biggest difference between VIe and VId is that the earlier finds seem to lack condyles altogether; with the exception of one bone point from a later level of VIe, none of the VIe points have condyles (Fig. 23:1-3). Awl-type points with condyles typically from the fused epiphyses of split ovicaprine metapodia begin to appear in phase VId (save the abovementioned example from a late level of VIe, see figures 23:7-9). Examples without condyles are present in phase VID as well (Figs. 23:5-6 and 24:1). Finished artifacts are common throughout but both phases also have minimally worked examples of modified splinters resourcefully put to use after marrow extraction. Phase VIe, however, yielded a few very highly worked and finished bone points as well, some that were so highly modified that the bone body part could hardly be identified (Fig. 23:1-3). Although it comes from the transitional phase between VId and VIe, the bone point in figure 23.10 shows how bone could have been split, providing some insights into the production process. Initially a groove was etched into the bone to guide the bone fracturing. Thereafter, all edges would have been smoothed and polished through use.

Spoons, typical of the Neolithic of the Marmara Region, are present even in the earliest phases of Barcın Höyük. Most notably two spoons, one larger with a long handle (Fig. 24:2) and another smaller one with a notched handle (Fig. 24:3) were found level VIe in L13. An additional spoon fragment, possibly the bowl part, comes from Trench L14. Phase VId yielded a bone spoon as well, with a reworked handle and a fragmentary bowl. The bowl-parts of spoons are quite often flat at Barcın Höyük and lack the concave-like shape that use for soups and porridges would have required. This suggests that they may instead have served a function similar to spatulas. On the other hand, it is probable, given the time commitment necessary to produce such a spoon, that they were ceremonial in use and that those produced for everyday use would likely have been made out of wood.[9]

Spatulas, produced at Barcın Höyük's later levels in prolific quantities from polished and split bovid ribs, quite interestingly, are missing from the VIe bone tool repertoire altogether while phase VId yielded six in total (figure 23:4). While we define a spoon as having a clearly distinction between its bowl and its handle, spatulas known from the later levels of the Neolithic at Barcın Höyük tend to be an even width from top to bottom. The tips of many the spatulas present in VId have been smoothed at an angle diagonal to the long sides but at least one has a symmetrically rounded tip. VIe did not yield any spatulas but other elongated tools like the object represented in figure 25:1 made from a scapula of a fallow deer and another produced from a bovid femur (figure 24:5) were recovered in this phase. The former is a well-finished piece with a flattened end and a naturally twisted body. The heavy polish suggests intensive use.

Smoothers, also typical of northwest Anatolian Neolithic assemblages, like spoons, were present even in the earliest levels of the assemblage but in low numbers. Both

[9] Necmi Karul, with whom this idea was discussed, should be acknowledged here.

phases VIe and VId yielded two examples each. Illustrated is an example (figure 25:2) from VIe. The surface has visible striations on it from intensive abrasion. Ovicaprine long bones or metapodia are the commonly preferred raw materials for this tool, the purpose of which is debated.

Excavations at Barcın Höyük yielded several fish hooks, although fish bones have not been found. This may, however, be a result of the size of the screening mesh.[10] While no fish hooks were found in Level VIe, this lack may not necessarily mean that they did not exist given the small sample size; phase VId yielded one complete and one fragmentary example while two additional fragments (from different fish hooks) were recovered in the transitional phase between VId and VIe. The complete example illustrated in figure 25:3 has an intentionally scored upper end to ensure that the string remains securely attached is beautifully crafted. BH 19834 (figure 25:4) from phase VId is an interesting object that could possibly have functioned as a spool for a fishing line given its grooved notches on the short ends to prevent the line from slipping when wound up.

A final category of bone tools are pierced objects. Whether they functioned as pendants or buttons of some sort remains a question but nonetheless we find them in levels VIe as well as VId. Illustrated in figure 25:5 is a rectangular pierced pendant-like bone from phase VIe. Interestingly, in phase VId and later such pierced bone pendants become standard in shape and are in the form of elongated teardrops. Three such pierced pendant examples were found in VId (Fig. 25:6, 25:7). Though the teardrop shape does not exist in the earlier VIe phase, a pierced bone object which may have functioned as a toggle-type button may have a similar outline (Figure 25:8). Pierced bones could also have been used as pendants, despite the fact that bone does not appear to be typically a material used for ornamentation. No bone beads were recovered, for example, and only one possible bead-blank, which happens to come from phase VId, was found for the entire site.

Overall, the small finds from these phases provide some insights into the social and economic aspects and the technological innovations of the earliest inhabitants of Barcın Höyük. Most remarkable is the evolution of some artifact categories and raw materials through time and the persistence of others. For example, the raw material used to make beads shifted from shell to stone between phases VIe and VId. The appearance of harder stone tools like celts in phase VId may be related and could suggest that the technology to produce stone beads and harder stone tools only appeared in phase VId. Another and perhaps more convincing explanation is that the inhabitants began to use the landscape differently and that, though time, they discovered new stone sources and learned to exploit their environment in newfound ways.

ABSOLUTE DATES FOR PHASES VIE AND VID

Eleven radiocarbon dates are currently available from Barcın Höyük's early deposits, four from phase VIe and seven from VId (Table 6). Two of the VId dates come

[10] A 5 mm mesh is used for screened contexts. Only a few contexts have been screened using a 1 mm mesh.

from structure 2 in trench M10, a burnt house still under excavation and not discussed in this article. The presence of transitional material between VIe and VId (see above) suggests the sequence continued without gaps (Fig. 26). Conceiving the dates as representing a continuous series of events, grouping the dates into bounded phases will constrain the probability distributions of individually calibrated dates. The resulting boundaries shown in Table 7 suggest a beginning of the earliest Neolithic occupation at Barcın to occur late in the 67th or in the 66th century cal BC (median value 6570 cal BC at 1σ). The start of ensuing phase VId most likely will have happened in the 65th C cal BC (median value 6460 cal BC at 1σ).

Lab number / BH number	**Date BP**	**Cal BC (1σ, IntCal09)**[11]	**Material**	**Trench-locus-lot / Context**	**Phase**
GrA-52848 / BH18541	7750±40	6637-6564, 6547-6528, 6518-6512	Charred wood	L13-Δ176-497; dug feature at base of L13 sounding	VIe
Beta-339197 / BH23198	7730±30	6595-6558, 6551-6507	Charred wood	L14-Δ201-353; small fire pit	VIe
GrA-52845 / BH17910	7715±40	6592-6502	Charred wood	L13-Δ170-460; outdoor surface	VIe
Beta-304970 / BH15810	7670±40	6565-6546, 6529-6463	Charred wood	L13-Δ177-483; outdoor surface	VIe
GrA-52849 / BH18838	7565±40	6458-6412	Charred wood	M10-Δ202-1016; from platform in structure 2	VId
Beta-304971 / BH 18471	7530±40	6441-6382	Charred seed	L13-Δ157-397; fill (?) deposit associated with possible wall	VId
Beta-339196 / BH23186	7480±40	6415-6353, 6309-6264	Charred hazelnut shell	M10-Δ290-1213; surface in structure 2, associated with horn cores	VId
GrA-45686 / BH7983	7430±40	6636-6282, 6274-6250	Charred wood	L13-Δ106-114; midden deposit	VId
GrA-50020 / BH11837	7410±45	6361-6288, 6271-6233	Charred seed	L13-Δ146-301; midden deposit	VId
GrA-50019 / BH11617	7395±45	6359-6290, 6270-6226	Charred seed	L13-Δ142-288; small outdoor fire pit	VId
GrA-52840 / BH13799	7390±40	6355-6293, 6267-6223	Charred seed	L13-Δ153-363; outdoor area	VId

Table 6. Barcın Höyük radiocarbon dates for phases VIe and VId.

[11] Calibrated with Oxcal 4.2.1; Bronk Ramsey 2009; Reimer, P.J. et al. 2009.

Phase Boundaries	cal BC (1σ)	Median
Start VIe	6620-6510	6570
Transition VIe/VId	6500-6420	6460
Transition VId/VIc	6330-6270	6300

Table 7. Barcın Höyük grouping of radiocarbon dates into bounded phases using the median as point indicator for the starting and transition points of phases.[12]

DISCUSSION

The materials presented here come from small exposures and the nature of the excavated contexts is not always easy to assess. Architectural remains were scarce and a sequence of architectural phases dating to phases VIe and VId remains to be excavated. Nevertheless, analysis of the pottery and the small finds brings out a number of interesting insights in the earliest occupation stages at Barcın Höyük. More significantly, the assemblages are the first from northwestern Anatolia dated that are securely to the 66th to 64th centuries BC. They have a bearing on our understanding of the chronology of regional developments.

Studies of the plant remains and faunal remains are ongoing and have not been included in this report. Generally speaking, it is clear that during these early stages of occupation, subsistence was based fully on arable farming and stock rearing.[13] Equally, studies of the chipped stone assemblages will be published separately.[14]

Ceramic changes and cooking technology

A striking difference between VIe and VId is the dramatic increase in the frequency of pottery, both in terms of sherd numbers and the minimum number of vessels represented. Moreover, the majority of sherds from the small VIe assemblage was found in the higher levels of VIe. At the time of the foundation of the settlement, in other words, pots were made and used in quite small numbers, suggesting that they did not function routinely in day-to-day activities such as food preparation. Following a limited growth during phase VIe, the much stronger increase in VId must be the result of a major change in the function of pottery within the community. The nature of this change can be inferred from several observations.

First, the increase in pottery is mirrored by a corresponding dramatic decrease in the appearance of fire-cracked stones from VIe to VId. As was suggested above, these stones had been used as cooking stones that were discarded after they cracked and broke.

[12] All calculations are based on the IntCal09 calibration curve (Reimer et al. 2009) and carried out with OxCal v4.2.1 (Bronk Ramsey 2009).

[13] Analyses by Alfred Galik and Doris Würtenberger (faunal remains) and René Cappers (botanical remains).

[14] Research by Ivan Gatsov and Petranka Nedelcheva.

Their disappearance suggests that heat transfer was now achieved without using heated stones and thus that cooking technology changed.

Second, changes in pottery technology from VIe to VId indicate that pottery took on a new function in food preparation practices. Technological innovations of Barcın phase VId ceramics addressed three issues: to make less heavy pots, to increase their thermal shock resistance and their ability to be used in direct-heating vessel content, and thirdly, to heat up and boil content more rapidly and more effectively by moving away from the use of cooking stones. The downward move of the center of gravity resulted in greater stability, and hammer-and-anvil was the technique of choice to approach the ideal of thin vessel walls, and addressed vessel weight and heating effectiveness simultaneously. Compacting of the exterior surfaces by high burnishing and the calcite tempers were obviously perceived by Barcın potters to have beneficial properties for cooking vessels. As Rye has demonstrated, calcite tempered vessels suffer minimal stress during repeated heating and cooling cycles when used in cooking (Rye 1981:33). With cooking stones having become obsolete in phase VId, the technological choices suggest that vessels now are heated directly over the kitchen fire. It is beyond doubt that this innovation revolutionized thinking about food, about preparing it, about taste and about the organization of labor in relation to food processing. The new methods allow for more subtle ways of cooking and for more precise monitoring of food dishes (Thissen et al. 2010).

Based on the limited number of radiocarbon dates available for phases VIe and VId, this change can be dated to the 65th century BC. Interestingly, this is contemporary with similar changes in ceramics and cooking procedures observed at Çatalhöyük in the Konya Plain at the transition from level VI to V (Last 2005; Atalay and Hastorf 2006).

Regional and chronological framework

Parallels for the earliest pottery from Barcın Höyük are among the tertiary deposited material from Demircihüyük, a site in the Eskişehir Plain some 100 km SE of Yenişehir, and in a similar location as Barcın on the edge of an alluvial plain, nearby a stream and a spring in walking distance (likewise, Menteşe, Ilıpınar and Aktopraklık). Barcın phase VIe ceramics are close to that site's Ware B, described as a micaceous schist ware, used to produce holemouth pots with flat bases and occasional solid lugs (Seeher 1987, plates 1-4).[15] No such early pottery has yet been found in other early farming sites in NW Anatolia. Neither close-by Menteşe, nor Ilıpınar at the Iznik Lake, Aktopraklık at the Ulubat Lake, or the cluster of sites near Istanbul (Fikirtepe, Pendik, Yenikapı) have yielded ceramics this early.[16] Even though the evidence up until now is meager, the parallels with the Eskişehir region suggest a SE connection. Conceptually similar pottery

[15] With the recent knowledge from Barcın's sequence, Ware B as published appears to represent a mix of different periods and fabrics; crescent- or slanted handles, small vertically pierced knobs and incise-decorated vessels (Seeher 1987, plate 4) are not part of the earliest assemblage.

[16] Potentially contemporary material may be present in Keçiçayırı, a site *c*. 50 km SE of Eskişehir, and again in a location apparently favored by early farming communities: plain edge, fresh water close at hand, although the Neolithic site is built on top of a hill and a terrace stretching away from it (Efe *et al*. 2012:229; Figs. 9 and 10).

to Barcın VIe is present in the earlier levels of Çatalhöyük, predating the shift towards a thin walled, technically superior ware, dominant in the assemblages from Level VI onwards. Although the early Çatal vessels were fibre-tempered in contrast to the Barcın material, general proportions and forms provide a striking parallel with Barcın. This correspondence is corroborated by a low occurrence of pottery at Çatal as well, but most remarkable is that both at Çatalhöyük and Barcın potters adapted their material to make it thinner, more resistant to thermal shock, and more effective in cooking generally.

The phase VId pottery finds its best, though unstratified parallels in Demircihüyük again; its Ware C is densely calcite tempered and conforms in surface treatment to Barcın practices. However, only about 25% of Ware C (416 sherds in total) is light colored, whereas most of them have dark brown and brown black colors (Seeher 1987:19f.). In Barcın these colors start to appear in a developed stage of VId and continue to remain dominant in subsequent phase VIc. We must assume that also Demircihüyük's Ware C constitutes a mix of different periods, but VId is certainly present. In nearby Menteşe, calcite tempered fabrics start to appear from the lower portion of the so-called 'middle occupation levels' (Roodenberg *et a*. 2003:20) downward to the basal deposits.[17] Since dominating colors of this portion of Menteşe ceramics are dark browns, Menteşe probably post-dates Barcın phase VId as described here, but it may run parallel to phase VId's developed stage.

Demircihüyük's Ware C is also termed 'Fikirtepe Ware' by Seeher (1987), but certainly its light colored component possibly predates the type-site, and his labeling is slightly misleading. Sharing the technology and fabric, at Fikirtepe there is a larger emphasis on open forms, while pot forms often appear to have articulated neck/lip zones, created by S-profiles, whereas in Ware C holemouths tend to be dominating. Additionally, unlike Barcın phase VId not all pottery from Fikirtepe is calcite tempered; about 15% is "sand tempered" (Özdoğan 1979, Table 2; cf. Seeher 1987:20).

Fabric may be a good chronological marker for the northwest Anatolian Late Neolithic. The mix of calcite ware and sandy wares at Fikirtepe, together with its generally dark colors, for example, suggest that the site is not part of the initial pottery Neolithic as now exemplified by Barcın Höyük phases VIe and VId. Fikirtepe, and contemporary sites in the Eastern Marmara, more probably are contemporary with Barcın phases VIc and VIb, a period during which, as is clear from Barcın, the shift from calcite to quartz/feldspar fabrics appears to have taken place.

For the moment, Barcın phases VIe and VId are best understood as (hitherto rarely encountered) early stages in a continuous Late Neolithic/Early Chalcolithic history of habitation and development in the eastern Marmara region. Subsequent stages in this ongoing tradition have been encountered at a number of sites, as well as at Barcın itself.

[17] These observations are based on L.T.'s research on Menteşe pottery analysis in 2000.

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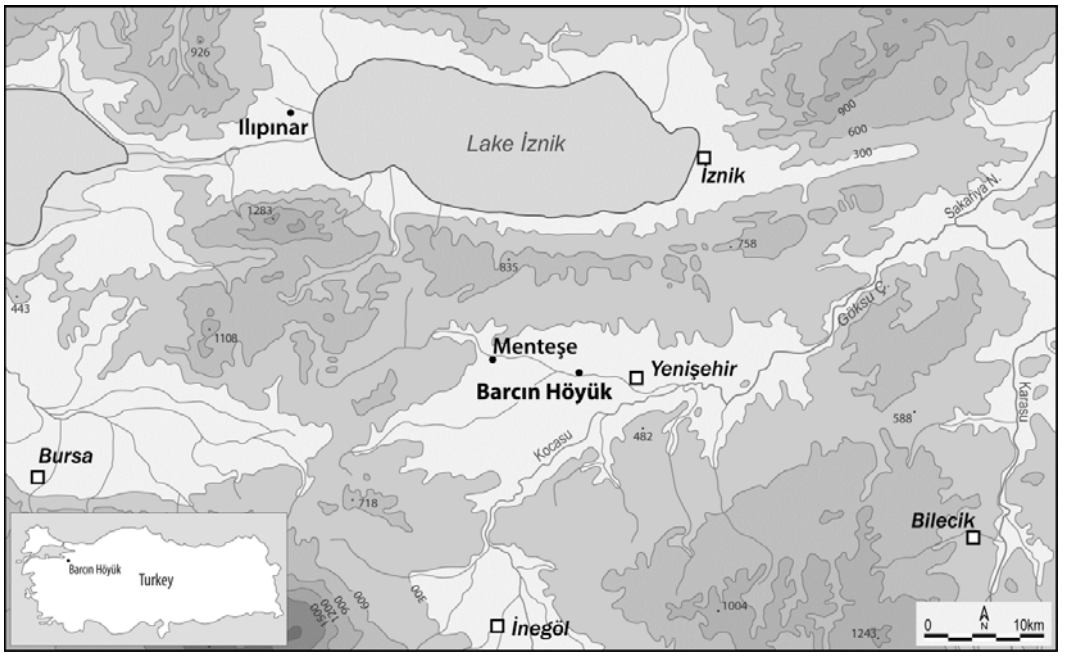

Fig. 1. The Yenişehir and Iznik Valleys, showing the location of the excavated prehistoric settlements Ilıpınar, Menteşe and Barcın Höyük.

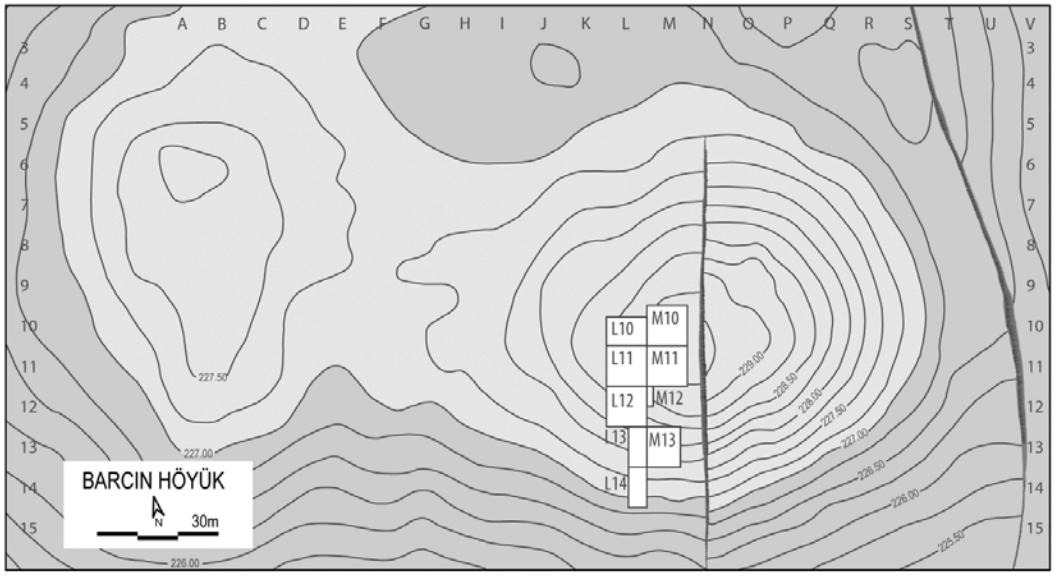

Fig. 2. Plan of Barcın Höyük with the location of the excavated trenches.

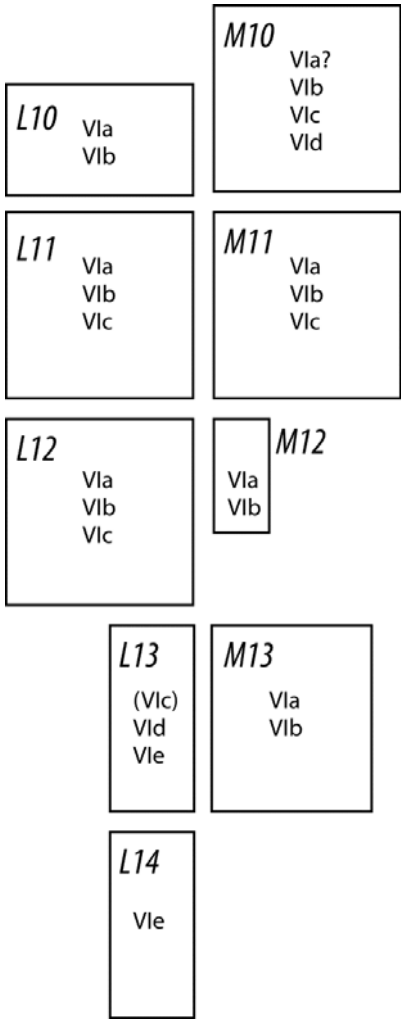

Fig. 3. Barcın Höyük; schematic plan of trenches with period VI phases that have been encountered in the 2007 to 2012 seasons.

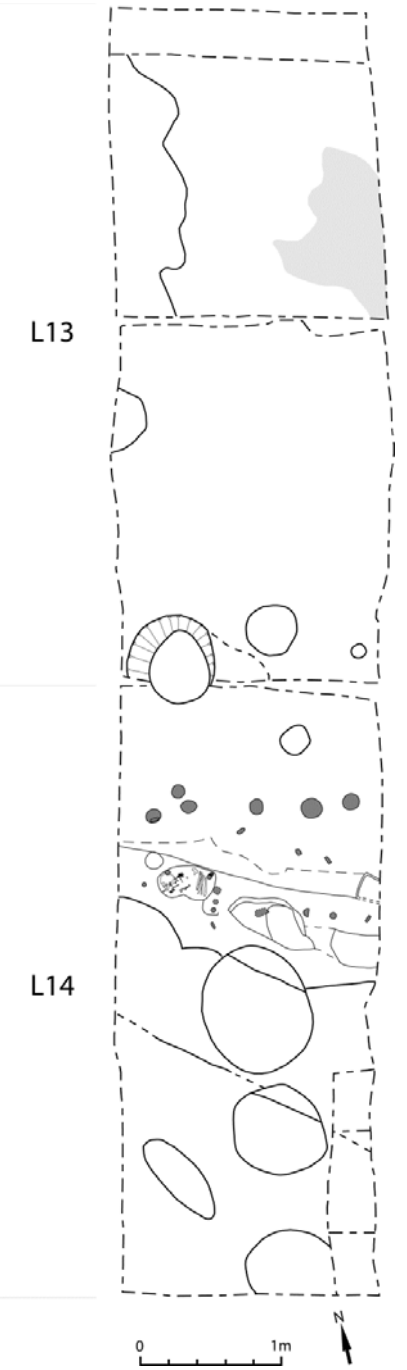

Fig. 4. Barcın Höyük; overall plan of soundings L13 and L14, showing the final situation at the end of the 2012 season.

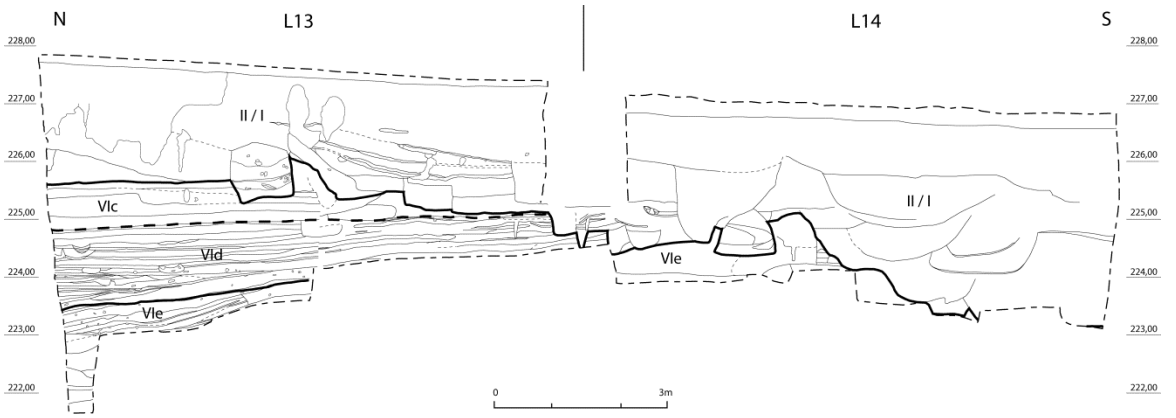

Fig. 5. Barcın Höyük; east section of trenches L13 and L14 showing phases VIe, VId, VIc (provisional) and II/I.

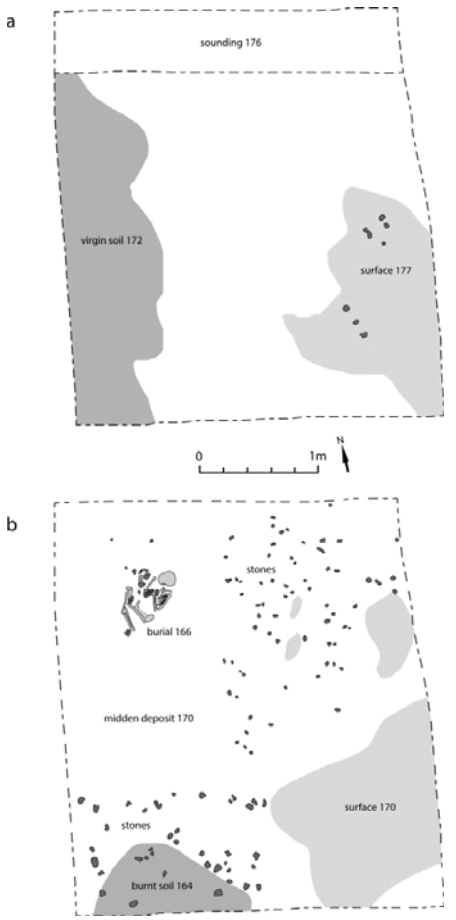

Fig. 6.a. Barcın Höyük trench L13: oldest phase VIe occupation surface (Δ177) and deep sounding locus 176; b. L13 VIe surface and deposit with fire-cracked rocks (Δ170). Burial L13-Δ166 was dug down to the top of virgin soil Δ172.

Fig. 7. Barcın Höyük; finds from a single VIe excavation lot (Δ177-487):
fire-cracked rocks, animal bone, and some chipped stone. Ceramics are absent.

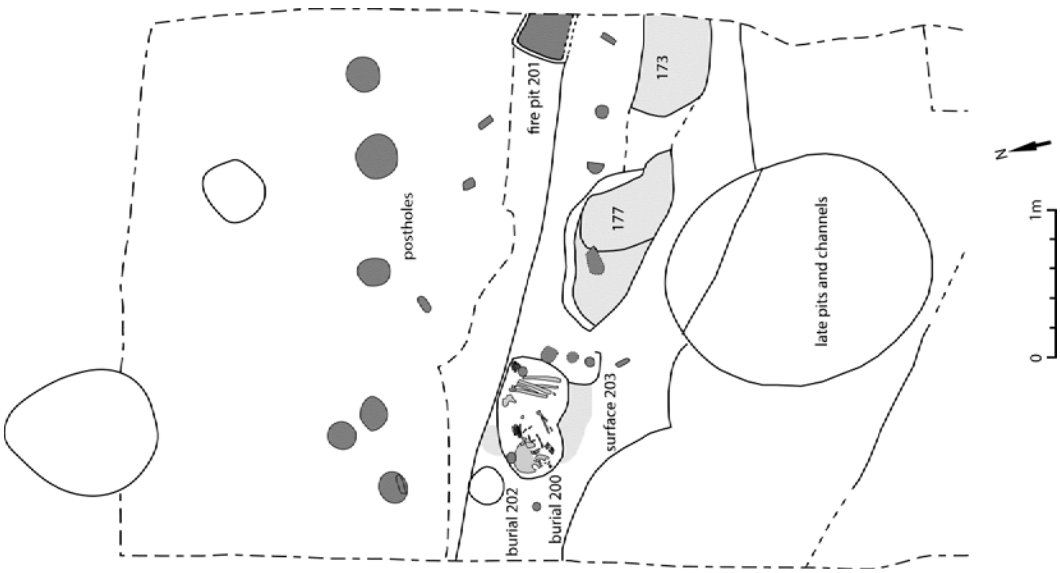

Fig. 8. Barcın Höyük trench L14 phase VIe deposits and features.

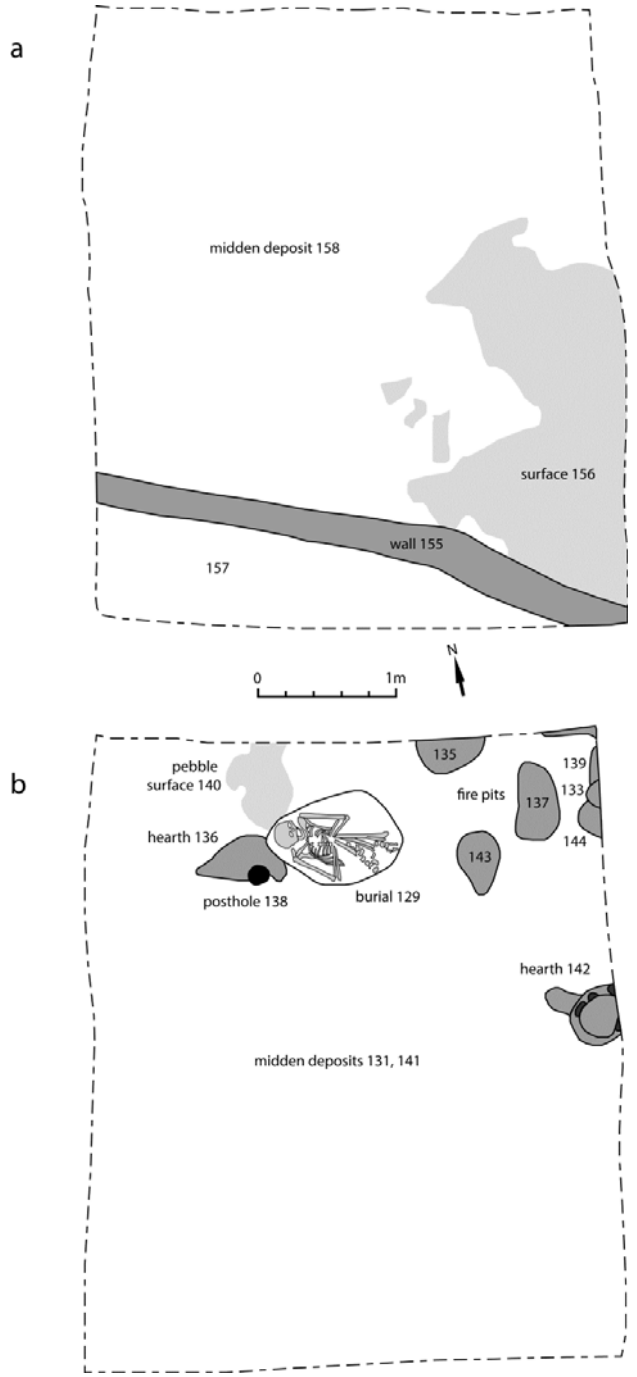

Fig. 9. a. Barcın Höyük trench L13 lower level of VId deposits with wall Δ155 and surface Δ156;
b. features from upper VId levels with fire pits, pebble surface
and burial within midden deposits Δ131 and Δ141.

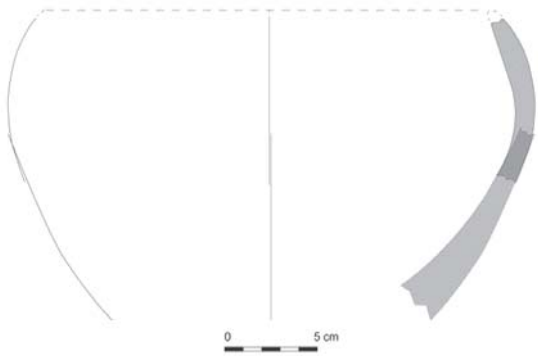

Fig. 10. Barcın Höyük, phase VIe. Composite drawing of rim and lower body sherd (L13, Δ163-450 and Δ163-447).

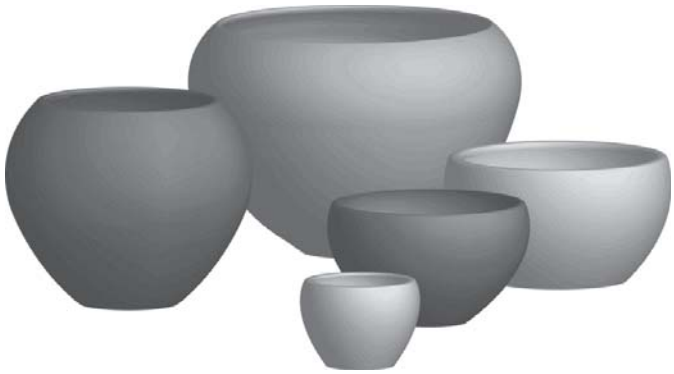

Fig. 11. Barcın Höyük, phase VIe, except front left: transitional stage VIe/VId. Virtual reconstructions of major basic-level categories.

Fig. 12. Barcın Höyük, phase VIe. Smudge traces on interior rim zone holemouth vessel (L13, Δ153-365).

Fig. 13. Barcın Höyük, phase VIe. Traces of crackling on inside of base fragment (L13, Δ158-378).

Fig. 14. Barcın Höyük, phase VIe. Base fragment inside surface cracks (L13, Δ158-363).

Fig. 15. Barcın Höyük, phase VId. Calcite Ware cooking vessel with smudged and attritioned interior (L13).

Fig. 16. Barcın Höyük, phase VId. Calcite Ware smudged interior shoulder zone (L13).

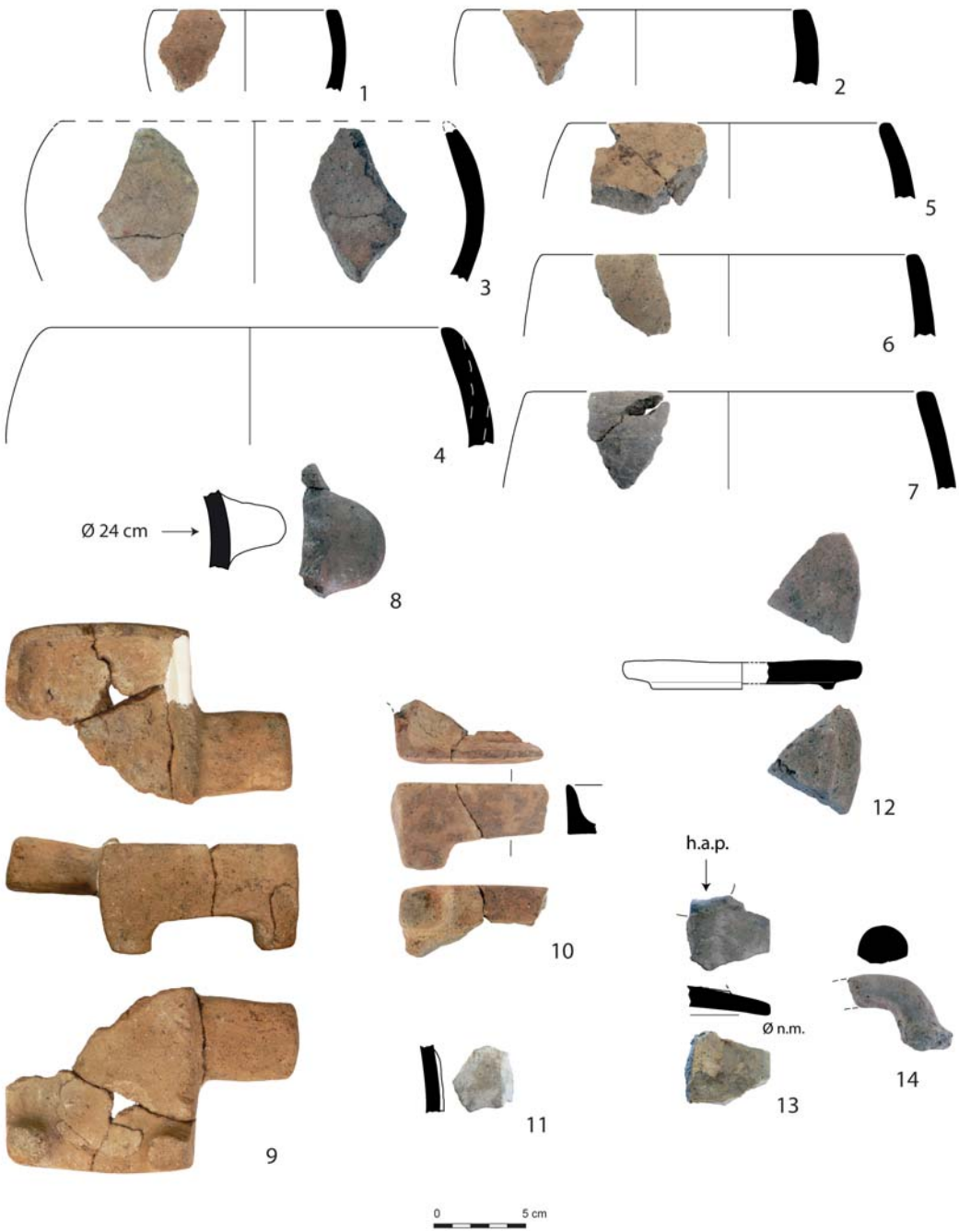

Fig. 17. Barcın Höyük, trench L13. Phase VIe Schist Ware. Provenance: 1. Δ153-365, 2. Δ158-395, 3. Δ163-450, 4. M11-Δ139-212 (trench M11 intrusion), 5. Δ161-422, 6. Δ161-433, 7. Δ158-391, 8. 158-392, 9. Δ161+Δ163-433+447, 10. Δ158-417, 11. Δ163-451, 12. Δ158-392, 13. Δ163-451, 14. Δ163-451.

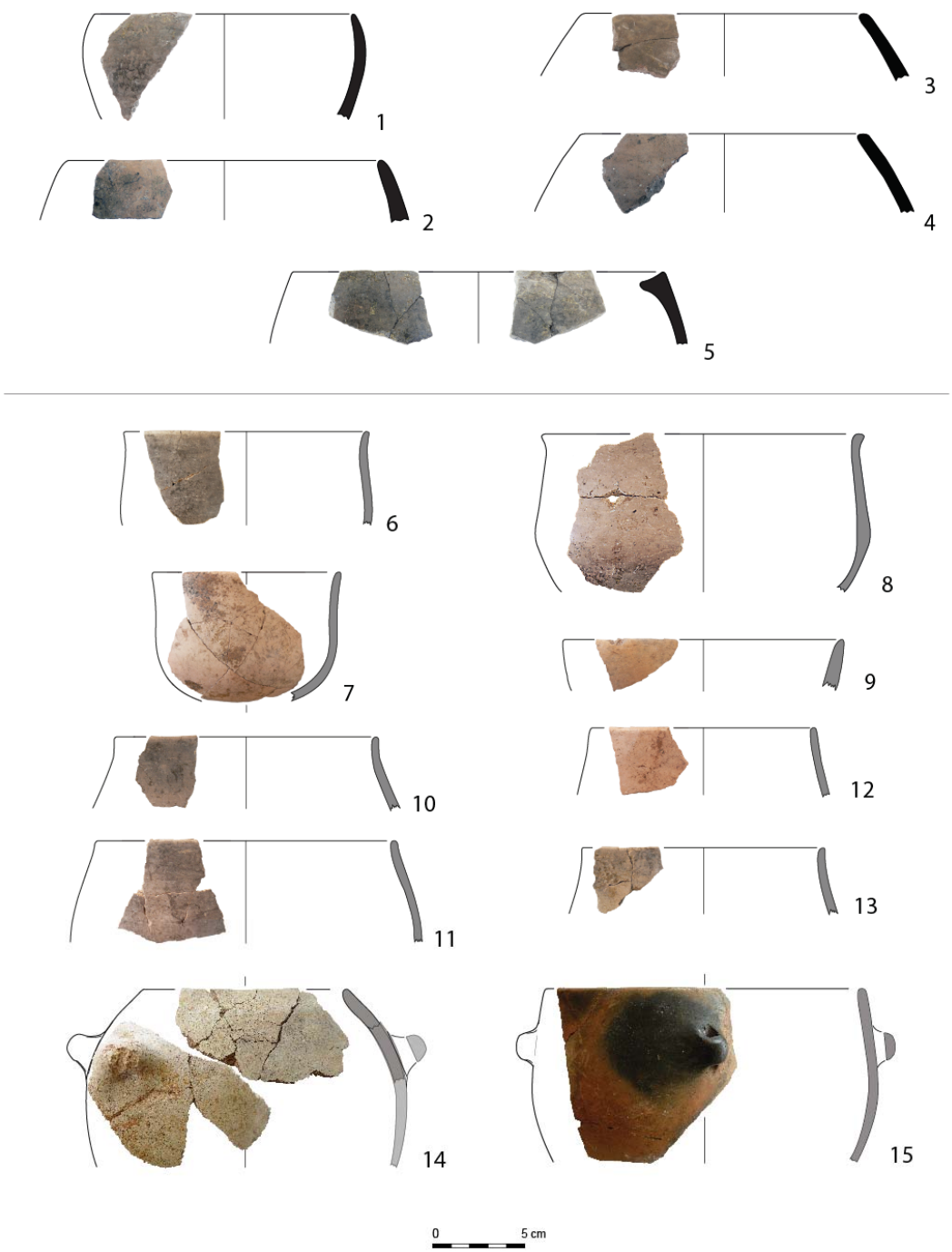

Fig. 18. Barcın Höyük, trench L13, except 14 & 15 trench M10.
1-5 'Transitional' VIe/VId Schist Ware; 6-15 Phase VId Calcite Ware.
Provenance: 1. Δ153-362, 2. Δ153-345, 3. Δ158-415, 4. Δ158-405, 5. Δ153-343, 6. Δ141-281, 7. Δ145-290, 8. Δ131-270, 9. Δ145-290, 10. Δ141-282, 11. Δ141-286, 12. Δ141-280, 13. Δ141-282, 14. Δ202-1044, 15. Δ290-1216.

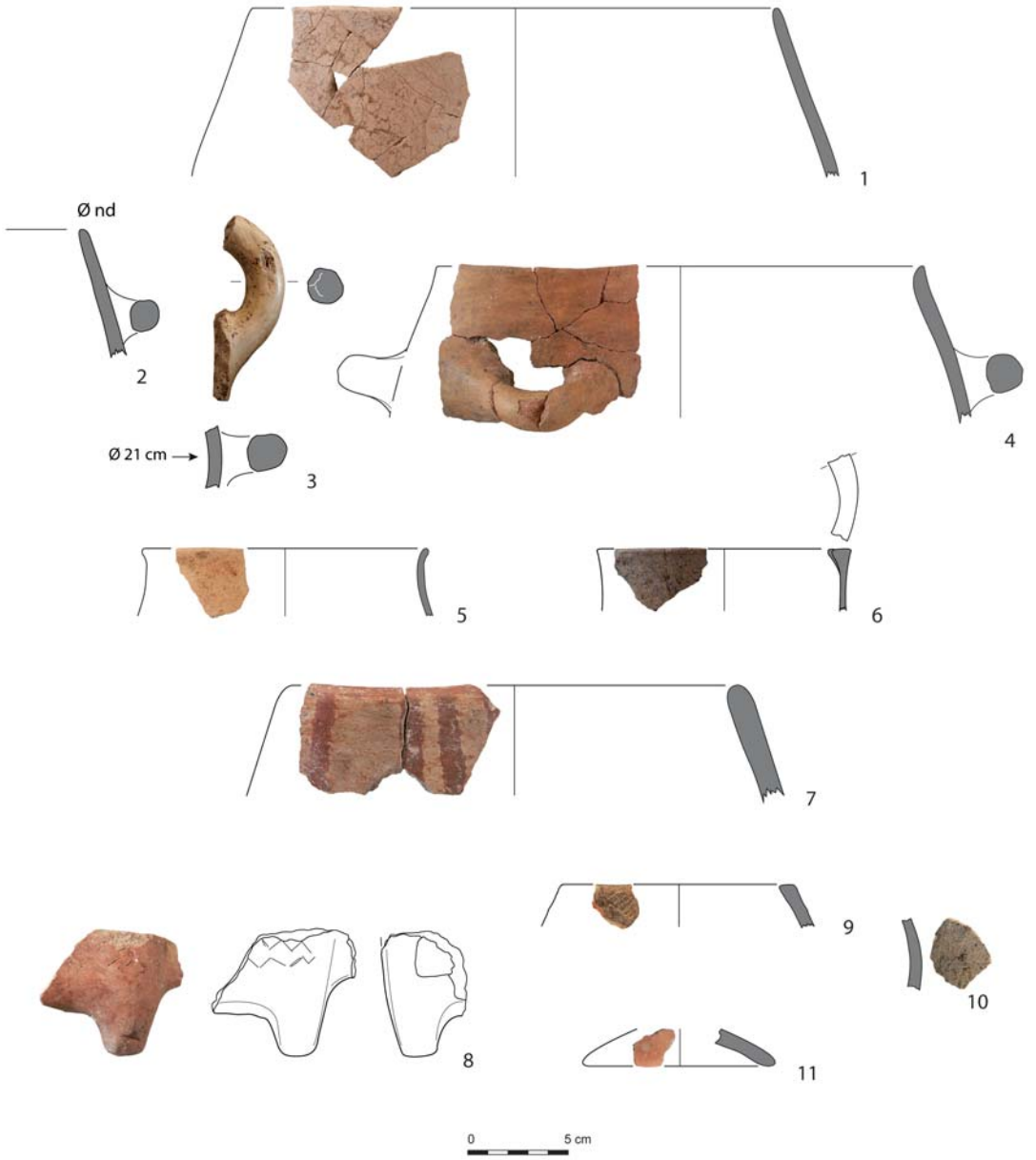

Fig. 19 Barcın Höyük, trench L13. Phase VId Calcite Ware (continued).
Provenance: 1. Δ141-280, 2. Δ141-286, 3. Δ145-293, 4. Δ131-255, 5. Δ141-281, 6. Δ145-290, 7. Δ141-280, 8. Δ145-297, 9. Δ131-270, 10. Δ141-278, 11. Δ141-279.

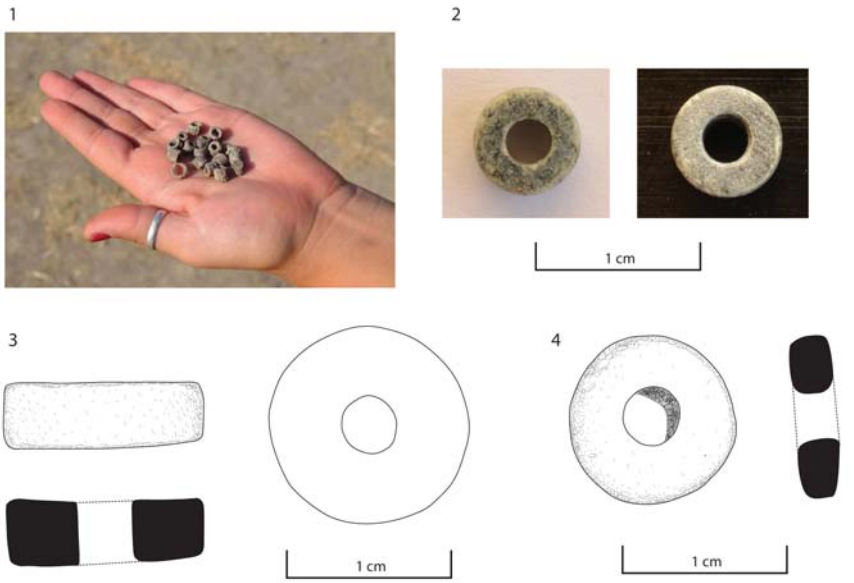

Fig. 20. Barcın Höyük, phase VIe and VId beads. 1. A collection of cut dentalium beads (VIe), 2. Beads BH22525 and BH22526 (VId), 3. Bead BH15825 ('Transitional' Phase), 4. Bead BH 13734 (VId).

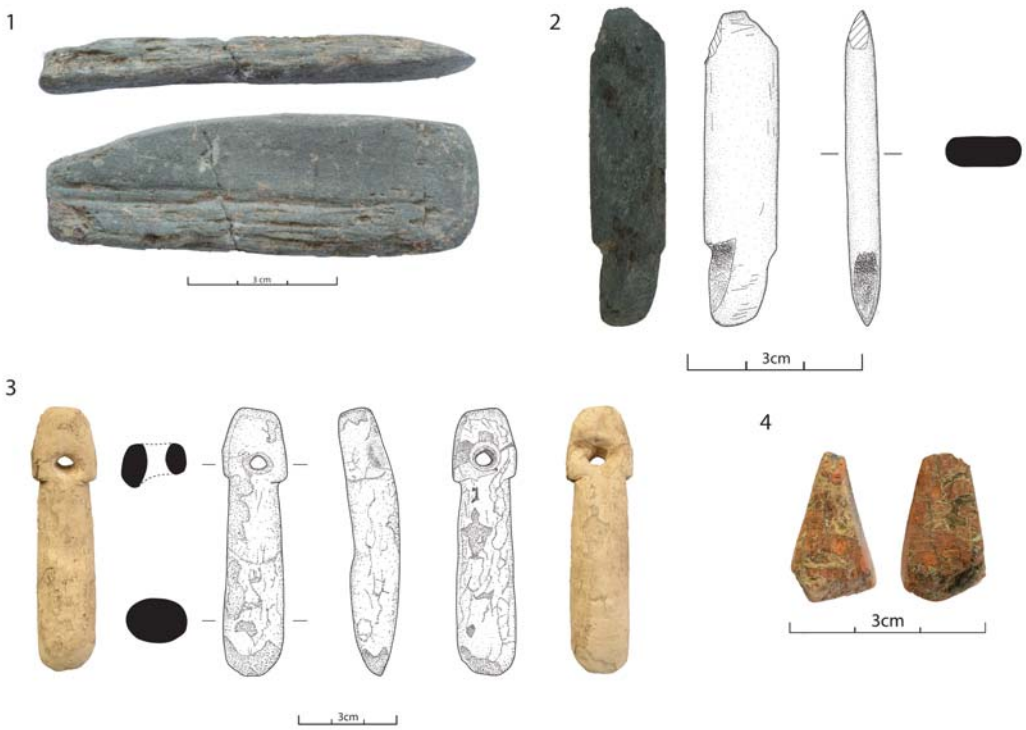

Fig. 21. Barcın Höyük, phase VIe and VId stone objects.
1. Elongated stone tool BH20368 (VIe), 2. Elongated stone tool BH15890 (VIe),
3. Pierced stone BH20111 (VIe), 4. Wedge-shaped stone tool BH22091 (VId).

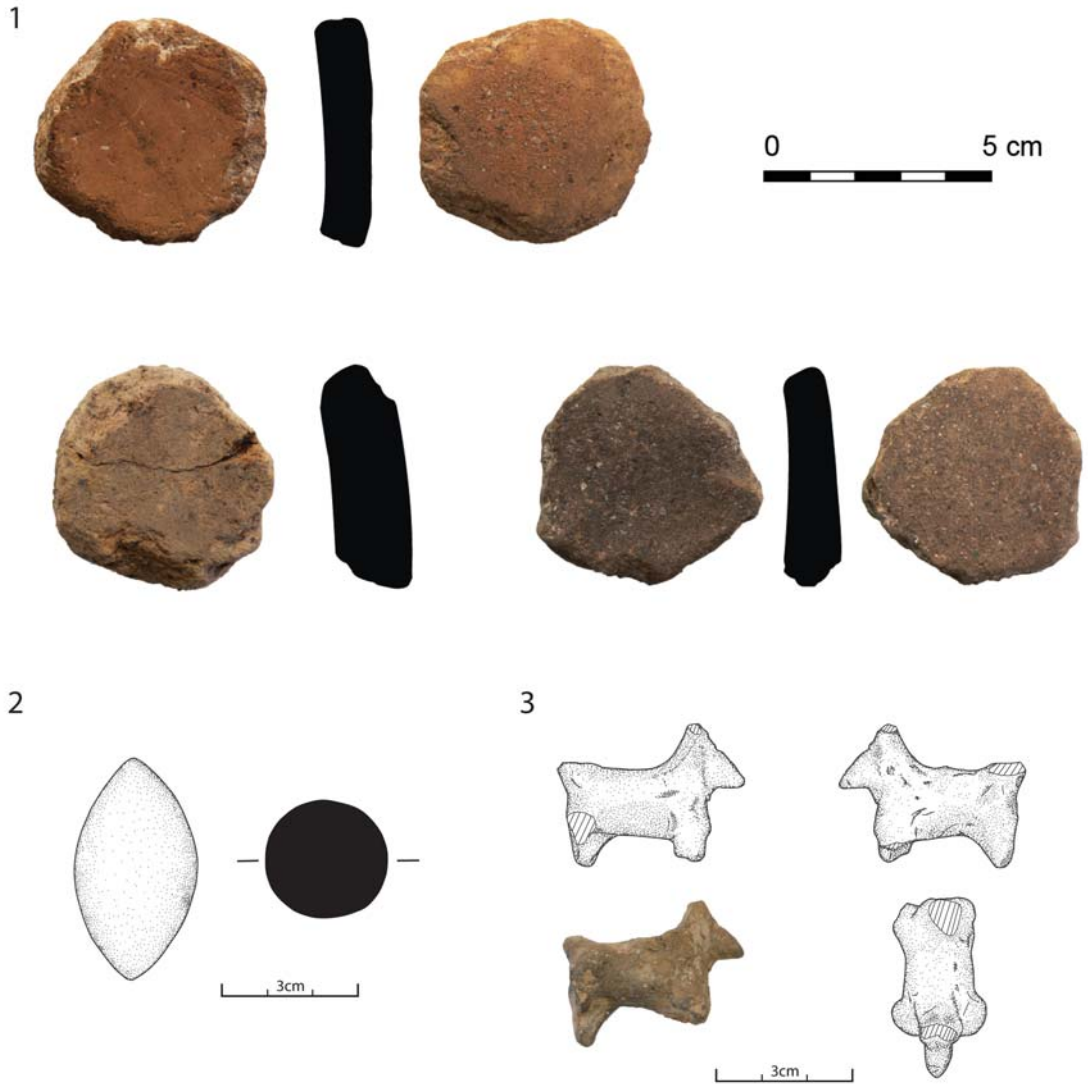

Fig. 22. Barcın Höyük, phase VIe fired clay objects.
1. Scrapers made of reworked sherds (VIe),
2. Sling pellet BH15184 (VIe),
3. Animal figurine BH17911 (VIe).

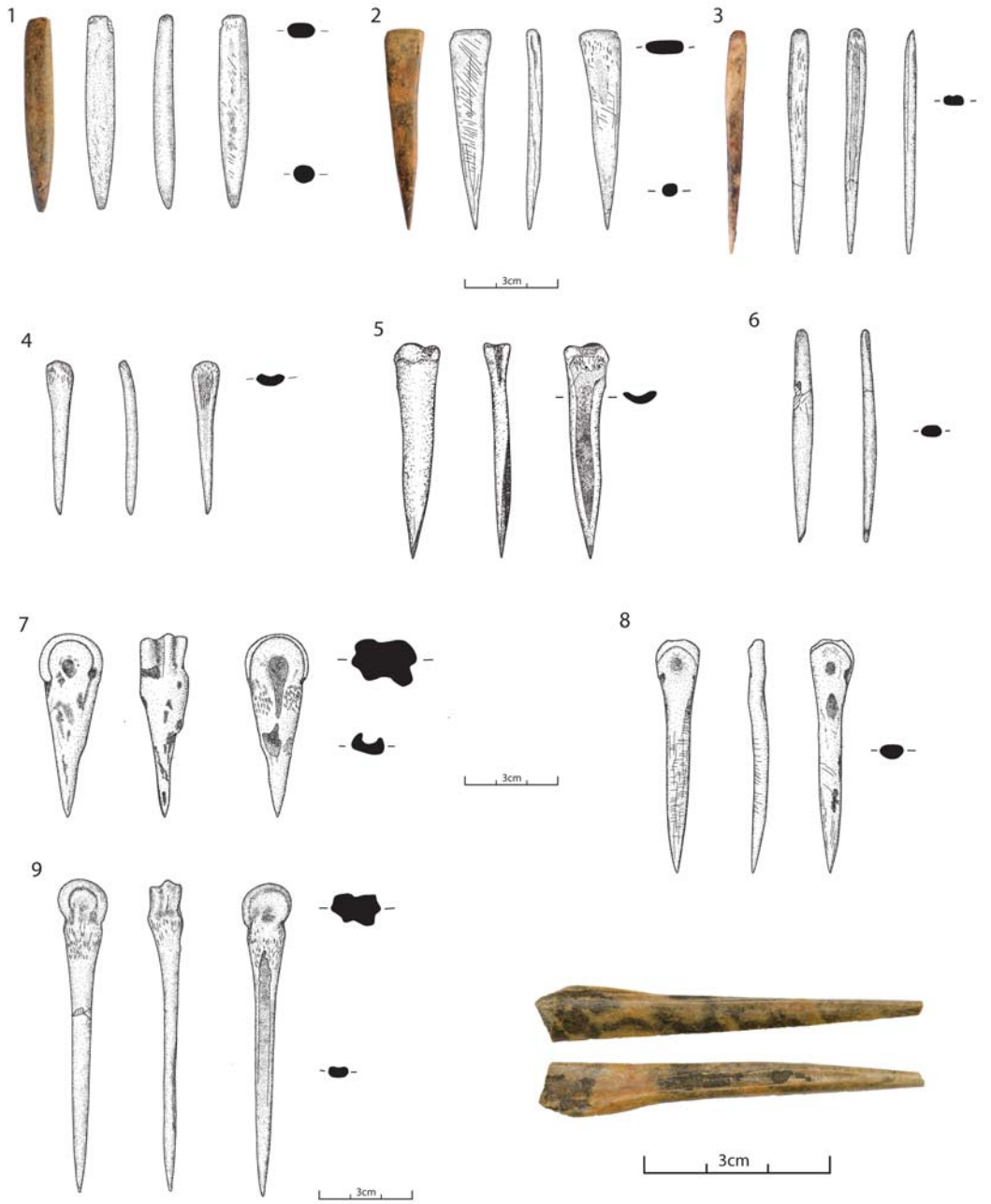

Fig. 23. Barcın Höyük, phase VIe and VId bone points.
1. BH20398 (VIe), 2. BH21444 (VIe), 3. BH16397 (VIe),
4. BH15179 (‘Transitional’ phase), 5. BH23517 (VId),
6. BH13144 (VId), 7. BH11167 (VId), 8. BH11137 (VId),
9. BH11622 (VId), 10. BH15822 (‘Transitional’ phase).

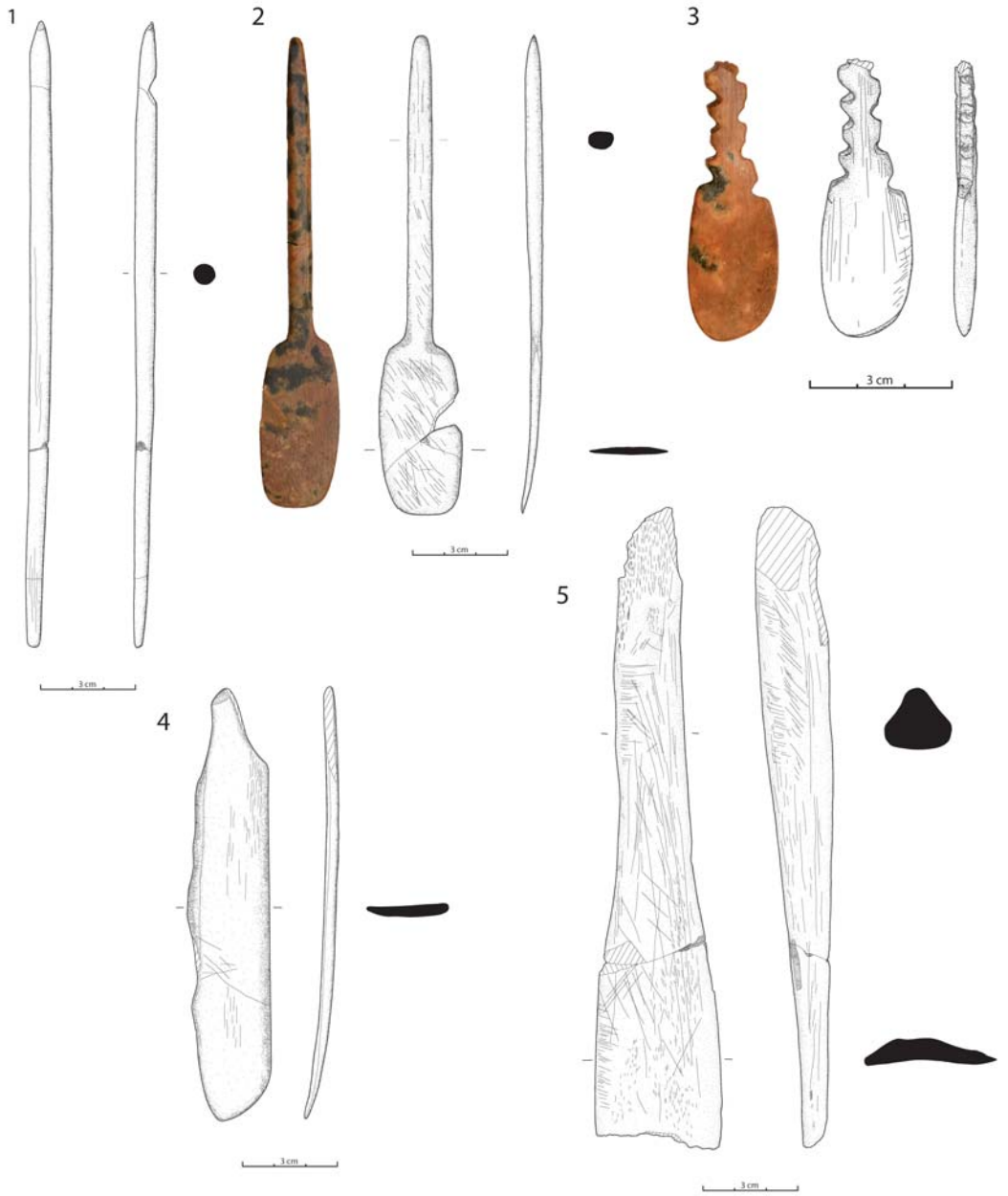

Fig. 24. Barcın Höyük, phase VIe and VId bone implements.
1. Pin BH9990 (VId), 2. Spoon BH16954 (VIe), 3. Spoon BH16981 (VIe),
4. Spatula BH11169 (VId), 5. Elongated bone object BH17950 (VIe).

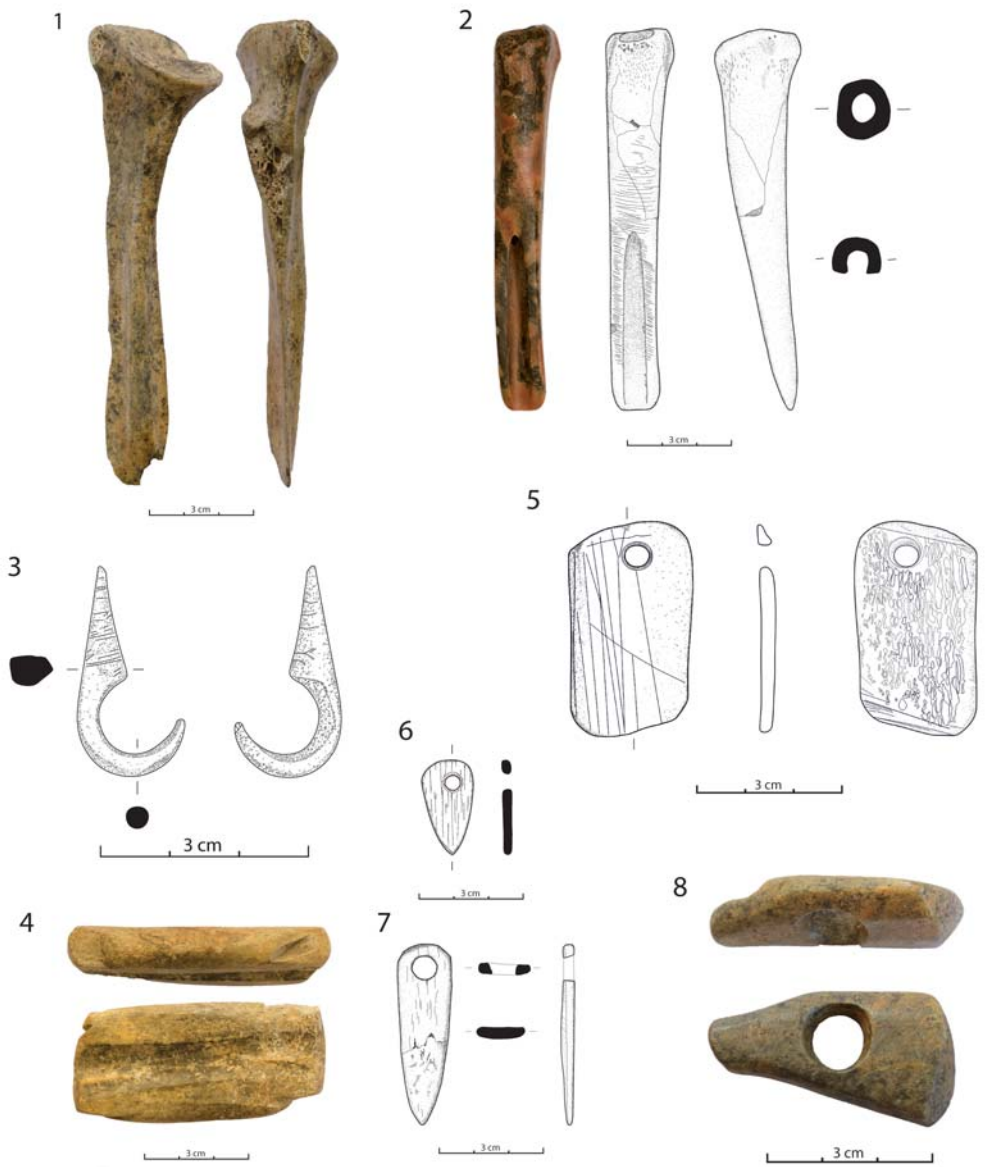

Fig. 25. Barcın Höyük, phase VIe and VId bone implements.
1. Worked scapula BH19820 (VIe), 2. Smoother BH17981 (VIe),
3. Fish hook BH23992 (VId), 4. Possible fishing line spool BH19834 (VId),
5. Pierced bone pendant BH19083 (VIe), 6. Teardrop-shaped pendant BH23518 (VId),
7. Teardrop-shaped pendant BH10549 (VId), 8. Toggle-button type object BH19314 (VIe).

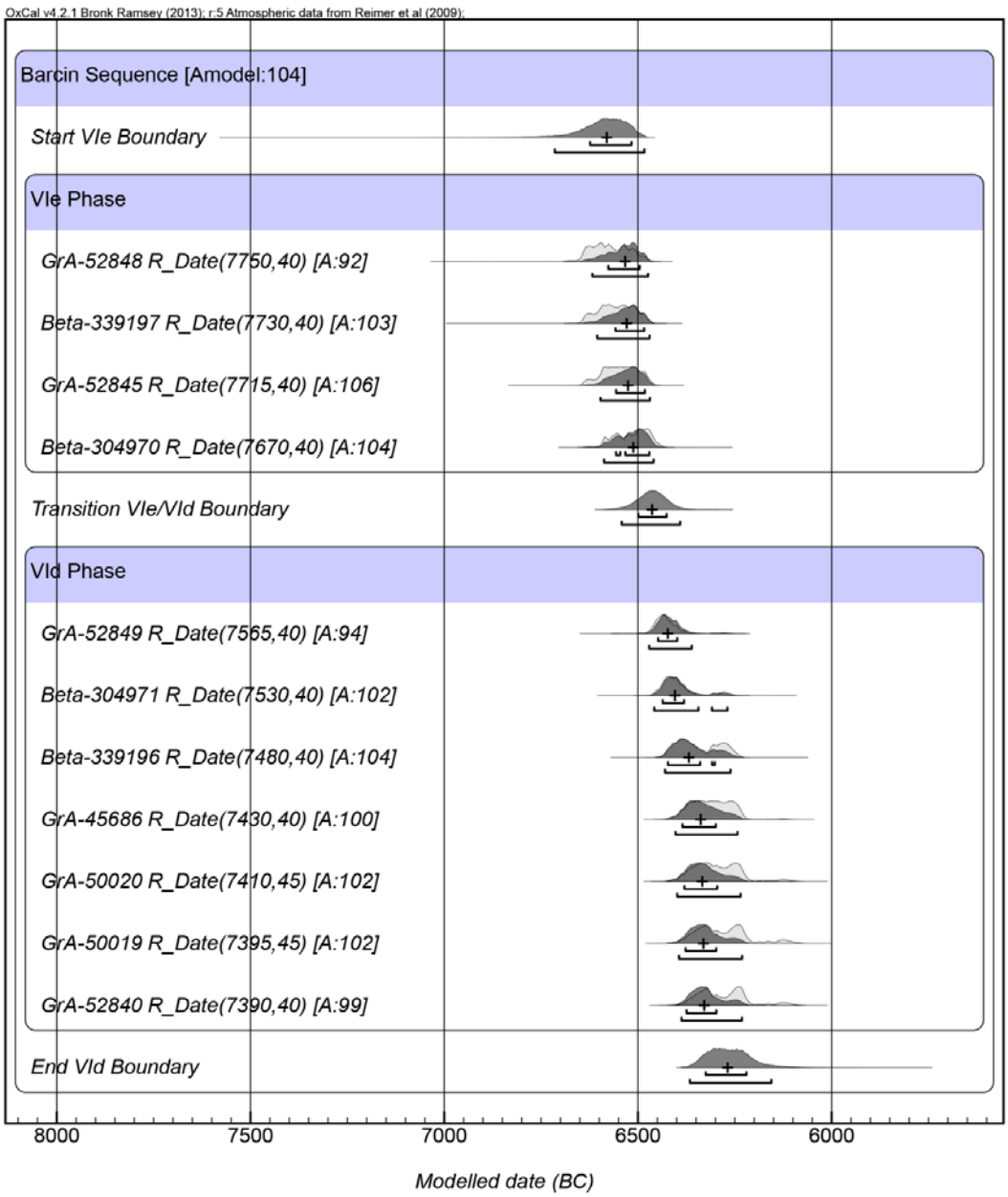

Fig. 26. Barcın Höyük, phase VIe and VId modelled radiocarbon dates.

ANATOLICA XXXIX, 2013

NEOLITHIC BURIALS FROM BARCIN HÖYÜK: THE 2007-2012 EXCAVATION SEASONS

M. Songül Alpaslan Roodenberg, Fokke A. Gerritsen, Rana Özbal[*]

Abstract

Excavations at the seventh millennium settlement of Barcın Höyük in NW Anatolia have yielded burials of adults, juveniles and infants. This article reports on 34 burials excavated in the years between 2007 and 2012. Most are single and primary burials, with the body in flexed position on its side. The preferred location to bury adults was in open areas between houses, used also for outdoor activities. Babies in contrast were frequently buried in the rubble of abandoned houses. Grave goods are not numerous and include animal bones and bone implements. Osteological examinations revealed high infant mortality, especially in the 0-3 months range. Coarse food consumption led to bad dental health among adults and juveniles. Among the observed pathological conditions degenerative arthritis was common.

INTRODUCTION

Barcın Höyük is a prehistoric settlement mound in the southeastern Marmara Region in the Yenişehir Valley. Its Neolithic layers date to between ca. 6550 and ca. 5950 cal BC, placing it among the earliest farming settlements in northwest Anatolia (see Gerritsen, Özbal and Thissen, this issue). Excavations and analyses are ongoing, including the examination of the burials and human remains. Therefore this report will give a preliminary overview of the dead population of this site and the ways in which they were buried. The first report on human remains from Barcın Höyük (Roodenberg, van As and Alpaslan Roodenberg, 2008), included three adult burials from the Neolithic period, which were discovered in the field seasons of 2005 and 2006. It concerned two females and one individual of unidentified sex, among them a young and a middle-aged adult. When these skeletons are included in the new collection, the number of individuals becomes 37, comprising 19 adults and 18 non-adults. The 34 individuals discussed in this study were excavated between 2007 and 2012. The skeletal remains of several individuals found in 2012 and before have not yet been studied.

[*] M.S.A.R.: independent scholar, responsible for the osteological examinations reported here; F.A.G.: Netherlands Institute in Turkey, Istanbul; R.Ö.: Koç University, Istanbul. The Barcın Höyük Excavations are supported financially by a grant from the Netherlands Organization for Scientific Research (NWO).

BURIAL CUSTOMS

The occurrence of primary and single burials, where the deceased were found interred in a flexed position, reflects one of the principle rules in Barcın's funeral practices. For small infants the position of the body could rarely be determined; the majority of adults and juveniles were buried in a flexed position on their left side. The two adults (L13-166, L13-129) and single juvenile (L14-200) that can be dated to the oldest Neolithic phases (VIe and VId, see Gerritsen, Özbal and Thissen, this issue, for a discussion of these phases) differ somewhat from this rule. The sample is still too small to determine whether this represents a change in burial customs during the occupation period of Neolithic Barcın Höyük.

L14-200 is the burial of a juvenile (fig. 1). The bones were poorly preserved and it was impossible to distinguish clear edges of a burial pit. The body lay flexed on its right side with the upper legs roughly perpendicular to the spine and the arms folded so that the hands were positioned in front of the face. No artifacts could be associated with the burial. The burial cut surface L14-203 that belongs to the oldest occupation remains encountered at Barcın Höyük, and although obviously younger than the surface, it is clear that L14-200 also dates to phase VIe. A baby burial (L14-202, not included in this report) was found at the same elevation some 20 cm behind the skull of L14-200. Double baby burial L14-140 was found nearby but about 15 cm higher up and must be slightly later within phase VIe.

L13-166 is the burial of an old female (fig. 2). The sides of the burial pit could not be well distinguished but a striking feature is that the base of the pit followed the slope of the virgin soil at this location, cutting only slightly into it. The feet were positioned higher than the upper body. Contrary to the more common position of the body on its side, this female was placed on her back with her legs folded to the right. Her left hand rested on a rock lying on her chest. A bone pin lay on the (badly preserved) pelvis, and an object of red stone ground to a fat almond shape was found to the right of her chest. Stratigraphically, the burial dates to phase VIe. Some bones exhibited color changes as a consequence of its exposure to fire; this had most probably occurred postmortem (fig. 15).

L13-129 is the burial of an old male (Fig. 3). The oval pit measured 92 cm at its longest (EW) extent and was 45 cm deep. This male lay on its back with the knees pulled up to the abdomen. With the upper arms alongside the chest, and the elbows somewhat away from the sides, the hands meeting the knees on the abdomen. Although the upper layers of fill of the burial pit contained animal bones and pebbles, no artifacts could be associated with the burial. Stratigraphically, this burial dates to phase VId, during which period the excavated area of L13 was an outdoor area used as a midden and activities involving small fire pits (see Gerritsen, Özbal and Thissen, this issue).

Burial M13-72 can serve as an example of a burial from the later Neolithic occupation phases, dating to phase VIb. M13-72 contained a middle-aged female buried on her left side in a roughly circular pit with a diameter of 60 cm and a depth of approximately 40 cm (Fig. 4). Her legs were folded between the arms, with the knee joints drawn up to close to the skull which, following the curve of the pit edge, was bent towards the chest. Her feet and hands were flexed and pushed hard against the sides of the

pit. A sheep or goat hoof was deposited on the pelvis and a small flint blade was found directly behind her skull. It is possible that several ovicaprid scapulae and mandibles were also deliberately deposited with the corpse. A stone pendant was found higher up in the 40 cm deep pit. Stratigraphically, the burials belong to phase VIb, when the northern part of trench M13 where the burial was located was used as an open area between houses.

The occurrence of graves of adults in open areas within the settlement is a general pattern at Barcın Höyük. An area of trench M10 that remained an open yard for an extended period of time (at least during phases VId, VIc and (part of?) VIb) yielded six adult burials and one child burial, as well as several fragmentarily preserved ovens (Fig. 5). Of these, M10-106 overlay M10-166 separated by 10-15 cm of earth, indicating the use of the area for burials over the course of some period of time. Somewhat of an exceptional location is that of M10-173. The oval burial pit cut dug through a post and loam wall of structure 1/9, following the abandonment of the house. Subsequently, the upper part of the burial pit fill was cut through to create a foundation ditch for another post and loam wall, perpendicular to the orientation of the older wall. At the very end of the 2012 season, an adult burial M13-119 was excavated alongside the interior face of the northern wall of structure 12 in trench M13. The structure belongs to phase VIb. Although it cannot be ruled out completely that the burial event took place while the house was still inhabited (some ephemeral surface fragments seemed to seal the burial pit), it is assumed that the person was buried (briefly) after the abandonment of the structure. The skeletal remains have not yet been studied.

Infants that died within the first one to two years of their life were generally buried within house structures. Until now, no unequivocal instances of living floors sealing infant burials have been documented and our working hypothesis is that small infants were buried in shallow pits among the rubble of abandoned houses. The fill deposits of structure 5, dated to phase VIb, yielded five infant burials (L11-213, L11-214, L11-215, L11-216, L11-322) as well as at least two infants whose bones were discovered unarticulated (L11-212a and L11-212b).

The burials described above are also representative for the practices regarding the placement of objects with the body. Animal bones in graves are fairly common, even when ignoring those bones that may have entered the grave with the earth used to fill the pit. A few instances of bone implements have been encountered, including two bone pins found on or near the pelvis and a bone spatula in a baby burial (M10-197). A baby burial found in structure 4 (M11-271, found in 2012 and not included in this report) contained a small pot with two vertically pierced lugs and a shell).

EARLY RESULTS OF THE OSTEOLOGICAL EXAMINATIONS[1]

Materials and methods

Among the 34 individuals we count 18 non-adults (Table 1), 16 adults (Table 2), the latter including 8 females, 4 males and 4 of unknown sex. As for age, one young, 7 middle-aged, 6 old aged adults were identified, while the age of 2 adults could not be determined. Infants constitute Barcın's largest age group with 16 individuals between 0 and 2 years old, among them 12 are very young babies. Two children were identified as being between 6 and 10 years old.

Seven adult burials were heavily disturbed in the past; as a result of this most of the skeletal parts were missing, while the remaining bones were fragmented. Preservation of the bone tissue was generally bad: the bones from 11 of the 16 adult skeletons were in a poor state of preservation, and so were most of the bones from non-adults. Moreover, the available bones were in majority incomplete.

Standard methods and techniques developed for the estimation of sex and accurate age at death in well-preserved human skeletons were tested on recent skeletons of which sex and age are known (Acsadi and Nemeskeri, 1970; Ferembach et al., 1980; Buikstra and Ubelaker, 1994; Brothwell, 1981; Krogman and İşcan, 1992). Application of these methods on old and fragmentary skeletons, such as the ones from Barcın and contemporary sites in the Marmara region, must be carried out with some reservation.

With regard to sex determination, if the coxal bone is absent or the associated sex features allowing determination not well preserved, sex is determined through the observation of cranial features and bone size as well as robusticity. The latter can also vary among populations, for example, individuals with small and fragile bones can be easily identified as female, if we don't know the morphological characteristics of the group being studied. Since we have a large sample of the Neolithic inhabitants who populated several sites in the region at our disposal, the identification of sex differences of the NW Anatolian population has become easier.

The sex categories for Barcın are established as follows: male / female, if both coxal and cranial determination was possible; probable male / female, if cranial and/or long bones were available. There is no reliable method to determine the sex of children. That is why only individuals after the years of adolescence were considered for sex determination.

In order to estimate the age at death of infants and juveniles the following methods were taken into consideration:

a) developmental stages of dental remains (Ubelaker, 1979);
b) bone dimensions (Maresh, 1970; Schaeffer, Black and Scheuer, 2009; Fazekas and Kosa, 1978);

[1] The anthropological research was partly supported by the European Research Council Starting Grant Project (ERC-2010-StG 263441).

c) stages of bone growth and epiphyseal fusion (Schaeffer, Black and Scheuer, 2009; Brothwell, 1981; Ogden, Conlogue and Jensen, 1978; Webb and Suchey, 1985);

When maturation of the adult skeleton is completed, age estimation becomes more difficult. Some parts of the skeleton such as the iliac crest of the coxal bone and the epiphysis of the clavicle complete their fusion by 30 years of age; likewise the cartilaginous synchondrosis between the basi-occipital and basisphenoid ossifies until early adulthood (Buikstra and Ubelaker, 1994; Schaeffer, Black and Scheuer, 2009). These can be a rough indicator of the age group of adults and helps to distinguish younger adults from the older ones.

When dental remains are available, observation of the degree of dental wear is one of the methods often applied for ageing incomplete adult skeletons (Brothwell, 1981). Since that was the case of Barcın Höyük's adults, the degree of dental wear and age related changes were considered in order to estimate their age. That increasing age generally affects bone is a known fact. Age related morphological changes are more easily identifiable in particular parts of the skeleton such as the pubic symphysis and the auricular surface of the coxal bone. Specific age related pathologies like arthritic changes, tooth loss and dental attrition were also considered for age determination in this study. According to the methods mentioned above the following age groups are distinguished: young adults (17-25 years), middle-aged adults (25-35 years), old adults (35-45 years).

Finally, cranial suture closure can also be considered as an age marker (Meindl and Lovejoy, 1985; Todd and Lyon, 1924).

Pathological conditions and non-metrical traits were recorded by macro-observations. Estimation of stature was made when a long bone was available (Martin and Saller, 1966), which occurred rarely in Barcın Höyük's adult collection. There are several formulas for estimating stature of different populations. Earlier studies showed that the formulas from Trotter and Gleser (1952; 1958) so far have yielded the most reliable results for the NW Anatolian population. Dental pathologies are examined and recorded for both adults and non-adults (Brothwell, 1981; Buikstra and Ubelaker, 1994).

Results

Infants and juveniles

Thus far the remains of 18 infants and juveniles were examined (Table 1). There are more infant bones from the Neolithic levels, but these will be studied in the coming years. In this village the highest mortality risk for infants apparently was between 0 and ca. 3 months, since the majority belongs to this age category. Twelve of them died during or soon after birth: the age of eight infants was estimated at 10 lunar months[2] (Nos. M10-180a, M11-102, L11-282, L11-214, L11-216, L11-215, L11-212a, L14-140b), of four of them at 9½ lunar months (M10-180b, M10-197, L11-212b, L14-140a). Three infants lived

[2] After conception.

a few months (L11-213, L11-322 and M10-211), while one infant reached the age of ca. 2 (M10-76). From No. L11-213 only few long bones were preserved: a radius, tibia and fibula could be measured and the results compared with several radiographic postnatal measurements from different sources. The metrical data from American children born between 1915 and 1967 (enrolled in the Child Research Council) fit well with the ones from our Barcın Höyük babies (Table 1; Maresh, 1970). Age estimations of babies M10-211 and L11-322 were made by comparing their skeletal parts with those of L11-213; as few incomplete bones of those two babies were preserved the result is given with reservation.

Two children of the 18 examined were ca. 6 and 8 years old (Table 1). Their remaining milk teeth were worn as a consequence of coarse food consumption.

The reason that no pathology was identified in the group of infants and juveniles is probably due to the bad preservation and very fragmentary nature of the bones.

Adults

Seven adult burials were heavily disturbed in the past (Nos. M10-102, L14-200, L11-439, M10-113, M11-139, M11-59, L13-130). As a result of this most of the skeletal parts were missing. The damaged burials however still contained some articulated bone elements indicating the original crouched position of the deceased.

In total, 16 individuals were uncovered, including 8 females, 4 males, and 4 of unknown sex (Table 2). Although it was obviously the rule that both sexes were interred on their left side, two old adults, as mentioned above, were found lying on their back – a female and a male, respectively Nos. L13-166 and L13-129. The woman's legs were slightly bent to the right, while the man's legs were pulled up to his waist.

Young adult

One young adult (No. L13-130) aged between 15-17 years possessed rather feminine cranial features. Since crania of young males are not fully developed, their secondary sexual features can be easily misidentified as female (Walker, 1995). Furthermore, since the coxal bone was missing, nothing can be said with certainty about the individual's sex. Regarding age determination, the ossification centers of the coracoid processes with the scapular bodies were still unfused. This points to an age younger than 15 for females and younger than 17 for males (Schaefer, Black and Scheuer, 2009). Given that the right third mandibular molar just erupted (eruption time is between 17 and 25 yrs.; Gray, 1918-2000) we can assume this individual probably died between 15 and 17 years.

Middle-aged adults

Four females (Nos. M10-115, M10-102, L11-200, M10-106), one male (M10-90) and 2 adults of unknown sex (M10-113, M11-59) are included in this category (Table 2).

Given that all of them were uncovered in rather badly preserved burials, there were no complete bones to calculate their stature. Age estimation was made by the degree of dental wear of some remaining molar teeth (L11-200, M10-106), further by the observation of age related changes on the bones (M10-115, M10-102). Sex determination

of the mature adults was made according to the cranial sex features and/or size and robusticity of the bones (M10-115, M10-102, L11-200 and M10-106). No coxal bone was available allowing sex determination.

Fragmented bones from the male burial M10-90 were rather robust and large, especially the distal part of the humeri. Arthritic changes on the fibula and vertebral fragments indicate that this male was probably of mature age. A mandible fragment showing antemortem teeth loss also hints to a mid-old age.[3]

The middle-aged adults of whom the sex couldn't be determined because of damaged graves are M10-113, M11-59. Although the few remaining bones of these individuals did not allow age determination, the degree of wear of some isolated upper molars as well as arthritic changes on fragmented bones point to a mature age.

Older adults

Four females (L11-207, M10-173, L13-166, M13-72) and 2 males (L13-129 and M11-93) are included in this group (Table 2). Because of a relative good preservation of the female burials sex determination was possible by means of the pelvic and cranial bones. In all four females the greater sciatic notch of the hip bone was rather large, as often evidenced in females. A preauricular sulcus was present in the hip bone of two of the females (L11-207, M10-173). As for the two males (L13-129, M11-93), since no innominate bone was available for sex determination, cranial and mandibular sex characters were considered as well as general size and robusticity.

Age determination of Nos. L11-207, L13-166, M13-72 was based on the degree of dental wear. Antemortem tooth loss was present in the females L13-166 and M10-173; the latter had lost all mandibular teeth, and the mandibular body was rather thinned probably because of her old age (M10-173). Furthermore, arthritic changes related to old age were identified in all females.

Compared to males, the skeletal remains from females were better preserved, yet the preservation of bone tissue varied much. A small number of complete long bones from females L11-207, M13-72 and L13-166 and from male burial M11-93 permitted to estimate the stature of Barcın's inhabitants. No. L11-207 yielded 3 complete long bones (left humerus and both radii); No. M13-72 the left radius, No. M11-93 also the left radius, and No. L13-166 two long bones (left radius and ulna). The estimated statures of both sexes are given in Table 3. Skull parts of L13-129, M11-93 were preserved demonstrating that cranial and mandibular bones feature masculine traits.

Age unknown

It appeared to be impossible to determine the age at death of a probable male (L11-439) and of another individual of unknown sex (M11-139). Grave M11-59 was heavily disturbed, the only remaining bones being cranial parts. These parts feature a

[3] When the age could not be established with help of the current methods, age estimation was made by observing some arthritic changes related to increasing age. Because such observations include lesser accuracy, individuals in this age group are designated as mid-old aged.

rather masculine character: supraorbital ridges, mastoid bone, nuchal crest, zygomatic bone and upper margin of the orbits. Hence the suggestion is that this individual was a male. No jaws or jaw fragments were found.

A small amount of adult remains was retrieved from grave M11-139. Among them isolated upper third molars and premolar teeth, which were worn to a degree of dental wear closely comparable to dental wear of the mature adults in the Barcın population.

Pathological conditions and bone variations

Pathological conditions observed in adults among the inhabitants of Neolithic Barcın are:

1) Age related changes in the bones such as degenerative arthritis is frequently noticed in both males and females. Eleven adults had developed these changes – 6 females (M13-72, M10-115, L11-207, M10-102, M10-173, L13-166), 4 males (L11-439, M10-90, M11-93, L13-129) and one adult of unknown sex (M11-59) all belonging to the middle to old age category, as could be expected (fig. 6a, b).
2) Porotic hyperostosis was found in the occipital bone of one old male (M11-93). This can be an indication of anemia, probably as a result of dietary malnutrition or of an infectious disease (see discussion below).
3) Old male L13-129 presented a periosteal reaction on the distal parts of femur and fibula (at both sides, fig. 7). This is formation of new bone, which can be caused by trauma, chronic stress injuries, infection, tumor and certain arthritic conditions (Rana, Wu and Eisenberg, 2009).
4) The left ulna of an old female L11-207 was broken and not united after the break. She lived a certain time after the trauma, because a pseudo-joint (pseudoarthrosis) occurred between the two fragments with cartilage formation and a joint cavity (fig. 8). Severe dysfunction of the forearm was a certain consequence. The fractured bone probably also affected the interosseus membrane,[4] elbow and wrist (Kloen, Wiggers and Buijze, 2010).

The following bone variations were noticed in adult individuals:

- Partly fused frontal suture (metopic suture) was recorded in a young adult (L13-130). Sometimes this suture can persist into adulthood;
- Supraorbital foramena at both sides were found in an old male (M11-93), while another old male (L13-129) exhibited a vastus notch in his right patella;
- A septal aperture was recorded in females L11-200 and L11-207, and in one male (M10-90). In all three cases it occurred in the right humerus.

[4] The fibrous sheet that connects the radius and the ulna.

Dental health

Although the study of dental remains is not completed yet, the following observations can already be made. One middle aged and two old females (M10-106, L11-207 and L13-166 respectively) exhibited carious teeth. In particular, dental health of female M10-106, who had three carious teeth and an abscess, was rather bad (fig. 9).[5] The level of dental calculus was moderate (female M10-106, male M11-93) or advanced (female L13-166) (fig. 10). Old males M10-90 and L13-129 (fig. 11) and old female L13-166 featured antemortem tooth loss. We further recorded medium level of alveolar atrophy in the old and middle-aged females L11-207 and M10-106, and medium severity of a periodontal disease in the jaws of female M10-106. Congenitally absent teeth were noticed in two cases: RLM3 from old male M11-93 and ULP2 from young adult L13-130, while the left second milk molar was still in the jaw (fig. 12).

One middle-aged female (M10-106) presented grooves in her lower and upper front teeth. This peculiar feature was found mesiodistally in URI1 and 2 and in LRC (fig. 13).

DISCUSSION

In this initial study the remains of 34 individuals of Barcın's Neolithic population have been examined.[6] More than half of this collection consists of infants, while the adults of the other half comprise 8 females, 4 males and 4 individuals of unknown sex. Life expectancy of both sexes did not differ much from each other, while most of the adults died at middle to old ages (25-45 years). Barcın's infant mortality was high but rather in line with the demographic data from the nearby Neolithic villages of Ilıpınar and Menteşe (Alpaslan Roodenberg, 2008; 2001).

Despite severe damage to a number of graves the overall impression from the funeral tradition of Neolithic Barcın is one characterized by primary and single burials. Seven adult graves were disturbed in the past and most of the bones were missing. Yet, the original skeletal position can be drawn from a few indications.

One case hints to a possible double infant burial (L14-140a,b; fig. 14) as it contained the remains of two infants – one of ten lunar months, and the other of 9½ lunar months – lying next to each other. Whereas the burial position of babies is usually unclear, juveniles appear to rest on their sides as was illustrated by a ca. 6 years old child (M10-166) buried in a flexed position on his left side, and by a ca. 8 years old child (L11-200) who was found in the same position on his right side. Adults were buried on their left side with flexed limbs. The old female and old male mentioned above were an exception to this rule. The color changes exhibited (white and black streaks) on the old female skeleton (L13-166) was likely a consequence of its exposure to fire postmortem (fig. 15).

[5] L11-207, old female: URI1, URI2 and ULI2; L13-166, old female: LLM1 (at the root level); M10-106, middle aged female: ULP2, ULM1, ULM2 caries; ULP2 ULM1 have an abscess.

[6] When adding three individuals from the first seasons the total becomes 37.

Stature estimation was established of 3 old females and one middle-aged male (Table 3). The stature of females varied between 146 and 159 cm. Stature of the male population so far is represented by one measurement only: ca. 166.5 cm being the height of male M11-93. Comparison to the inhabitants' stature of other villages in the surroundings of Neolithic Barcın may be premature given the limited number of metrical data, all the more since it is expected that further investigations at the site can easily influence these figures.

All males and 3/4 of the females exhibited arthritic changes in the bones as a result of increasing age and repeated physical activities. As could be expected these were middle to old aged individuals. An old female's forearm had suffered a non-union fracture; due to this painful trauma she was not able to use her arm properly.

One middle-aged female (M10-106) exhibited grooves in the upper and lower front teeth, a particular condition that we noticed already among females from other NW Anatolian villages (Alpaslan Roodenberg, 2011; 2008; 2001) suggesting that in this region the front teeth were likely used as a third hand.

A septal aperture was found in the right distal humerus of one man and two women. It is presumed that the frequent occurrence of septal aperture is related to joint hypermobility in earlier populations (Mays, 2008). Further, it seems to occur more frequently on the left side, and mostly in females (Bergman et al., 1995-2013).

As we have seen from other Neolithic communities, dental health was also a problem of the inhabitants of Barcın. About one third of the females and males of middle to old age shared quite bad dental health including carious teeth and antemortem tooth loss. A moderate to advanced level of tartar was found in both males and females. In addition, since strong tooth wear is a widespread phenomenon in prehistoric populations, it is no surprise that such wear was recorded at Barcın as well – not only in adults, but even on milk molar teeth of children evidencing that both age categories consumed the same coarse foods.

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Burial	Age	Measured bone(s)	Source
		Infants	
L11-212a	10 lunar m.	H**	Fazekas and Kosa, 1978
L11-212b	newborn	H fragm.	Fazekas and Kosa, 1978
L11-213	3 m. 4-8 m.	R, T, Fb Dental est.	Maresh, 1970 Ubelaker, 1979
L11-214	10 lunar m.	T, Fb, F**	Fazekas and Kosa, 1978
L11-215	10 lunar m.	F**, Fb, T, H	Fazekas and Kosa, 1978
L11-216	10 lunar m.	H, F, T	Fazekas and Kosa, 1978
L11-282	10 lunar m.	F**	Fazekas and Kosa, 1978
L11-322	3 m. 4-8 m.	H* Dental est.	Size comparable to L11-213 Ubelaker, 1979
L14-140a	9½ lunar m.	F, H	Fazekas and Kosa, 1978
L14-140b	10 lunar m.	F	Fazekas and Kosa, 1978
M10-76	1-2 yrs.	H	Maresh, 1970
M10-180a	10 lunar m.	F+R	Fazekas and Kosa, 1978
M10-180b	9½ lunar m.	H + Fb	Fazekas and Kosa, 1978
M10-197	9½ lunar m.	H*	Fazekas and Kosa, 1978
M10-211	3 m.	Pars lateralis H proximal frg.	Size comparable to L11-213
M11-102	10 lunar m.	H**	Fazekas and Kosa, 1978
		Juveniles	
L14-200	8 yrs. (± 24m.)	Dental est.	Ubelaker, 1979
M10-166	6 yrs. 6-7 yrs.	T, R, U, H Dental est.	Maresh, 1970 Ubelaker, 1979

m. = months; yrs.= years; prox.= proximal; frag.= fragment; est.= estimation.
** = maximum length + width of the distal end of the diaphysis;
* = only width of the distal end of the diaphysis.
H = humerus; U = ulna; R = radius; F = femur; T = tibia; Fb = fibula.

Table 1. Infant and juvenile burials.

Burial	Sex	Age	Bone preservation	Condition/position-side
L11-200	F*	25-35 yrs.	bad	disturbed
L11-207	F	old age	good	flexed left
L11-439	M*	indet.	bad	disturbed
L13-129	M	old age	bad	extreme flexed on back
L13-130	indet.	15-17 yrs.	bad	partly unexcavated
L13-166	F	old age	bad	on back, legs to the R
M10-90	M*	mid-old age	bad	flexed left
M10-102	F*	mid-old age	bad	disturbed
M10-106	F*	25-35 yrs.	good	flexed left
M10-113	indet.	>25 yr.	bad	disturbed
M10-115	F*	mid-old age	bad	extreme flexed left
M10-173	F	old age	good	flexed left
M11-59	indet.	mid-old age	bad	disturbed
M11-93	M	35-45 yrs.	good	flexed left
M11-139	indet.	indet.	bad	disturbed
M13-72	F	35-45 yrs.	good	extreme flexed left

F = female; M = male; * = probable; indet. = indeterminate; yrs. = years old.

Table 2. Adult burials.

Burial	Sex	Age	Estimated stature	SE	Bone
L11-207	F	old	150.6 cm	±4.24 cm	left radius
L13-166	F	old	146.8 cm	±4.24 cm	left radius
M11-93	M	old	166.5 cm	±4.66 cm	left radius
M13-72	F	old	159.21 cm	±4.24 cm	left radius

The left radius was chosen to estimate the stature for each individual because in all cases, the left radius was available.
M = male; F = female; SE = standard error

Table 3. Estimation of stature.

Fig. 1. Juvenile L14-200 dating to the earliest occupation phase, VIe.

Fig. 2. Old female L13-166 lying on back with legs folded to right.
A bone pin found on the pelvis has already been removed.

Fig. 3. Old male L13-129 lying on back with legs drawn up to abdomen.

Fig. 4. Old female M13-72. Note the hoof placed on the abdomen. North is towards the bottom of the photo.

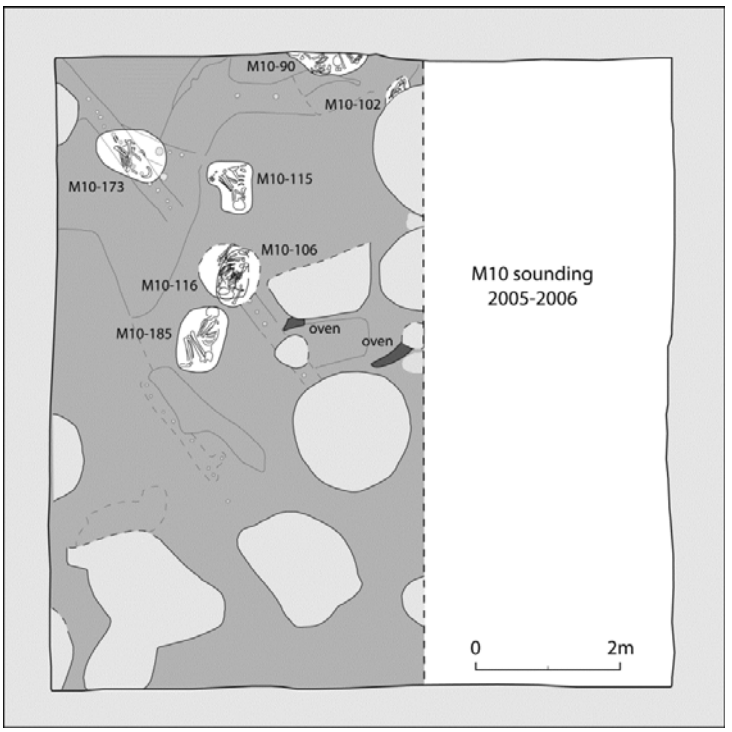

Fig. 5. Group of phase VIb burials in the western part of trench M10.

Fig. 6a. Middle-aged female M10-106 exhibits enlargement and pitting on the inferior articular process of the second cervical vertebra (axis) due to degenerative arthritis.

Fig. 6b. Spinal osteophytosis (see arrows) due to degenerative arthritis – old male M11-93.

Fig. 7. Formation of new bone (exostosis) on the surface of the left distal fibula and tibia (from the medial aspect) – old male L13-129.

Fig. 8. Non-union fracture of the left ulna – old female L11-207.

Fig. 9. Arrows indicate the root abscesses at the level of the upper left first molar and the first premolar of a middle-aged female (M10-106).

Fig. 10. Advanced level of dental calculus on the mandibular front teeth of an old female (L13-166).

Fig. 11. Antemortem loss of most mandibular teeth of old male L13-129.

Fig. 12. Left maxillar fragment of a young individual (L13-130). The second milk molar is still present. Arrow indicates the heavily worn occlusal surface of the milk molar.

Fig. 13. Grooves in the front teeth of a middle-aged female (M10-106).

Fig. 14. Possible double infant burial (L14-140).

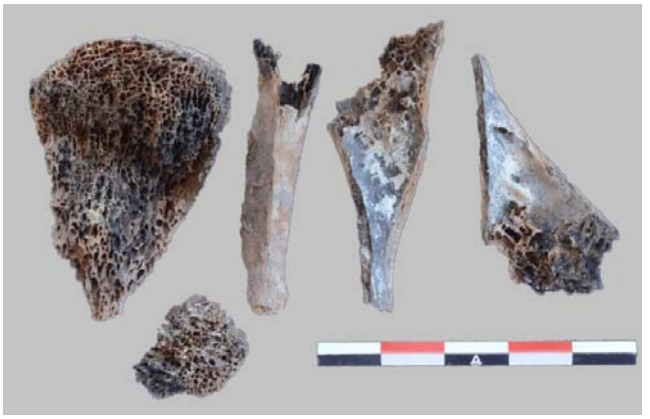

Fig. 15. Burnt long bone fragments of an old female (L13-166);
notice the discoloration due to postmortem exposure to fire (inner side).

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THE 2009 AND 2012 SEASONS OF EXCAVATION AT ÇADıR HÖYÜK ON THE ANATOLIAN NORTH CENTRAL PLATEAU

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Abstract

Çadır Höyük, on the north central Anatolian plateau, is one of the few multi-period sites in the region. Presently, excavations spanning 1994 to 2012 have demonstrated that occupation at the site span the millennia from ca. 5200 BCE to the 11th century CE. Reported here are major findings from excavations conducted in the 2009 and 2012 seasons; some data from previous seasons is also presented. Excavations in recent seasons have targeted four main periods: the Late Chalcolithic/Early Bronze Age (ca. 3600-2900 BCE), the Middle Bronze/Hittite period (ca. 1800-1200 BCE), the Middle and Early Iron Age (ca. 1200-800 BCE) and the Middle Byzantine (6th-11th c. CE). Significant discoveries in the 2012 season reported on here include a major Hittite-period casemate wall, and a Chalcolithic period pottery production area. Our Iron Age excavations continue to demonstrate that a significant industrial area existed at Çadır during this period; Byzantine excavations confirm the tri-partite phasing outlined in previous seasons and further defined the incremental but apparent decline in fortunes during the passage of the Byzantine centuries.

INTRODUCTION

The following reports, primarily, on two seasons of excavation at Çadır Höyük in 2009 and 2012[1] but also presents selected data from earlier seasons, particularly on the east slope "Step Trench." The 2012 season brought two significant changes to the Çadır Höyük excavation project: new leadership and new area names. After eighteen years as Director of the Alişar Regional Project/Çadır Höyük Excavations (Fig. 1), Ronald Gorny (University of Chicago) retired from archaeology. The role of Director has passed to

[1] We would like to thank the Turkish Ministry of Anıtlar ve Müzeler Müdürlüğü and İsmail Sarıpınar, our representative in the 2012 season) for their support and invaluable aid during these seasons of work. We were also fortunate to have excellent teams in both seasons and we thank them for their outstanding field and lab work and their much appreciated contributions. In addition to those who authored this article, and our senior staff (MJ Hughes [Hood College, senior illustrator], Carola Manzano [Conservation], Carol Schneider [House manager], Alexia Smith [University of Connecticut, palaeoethnobotany], and Bruce Verhaaren [Argonne Laboratories], the Çadır teams included the following archaeologists in 2009: Rob Caro, Jon Clindaniel, Samantha Haines, Katie Klauenberg, Megan McMahon, John Parker, Jacob Ransohoff, Brian Truelson, and Sarah Voorhees. In 2012 our team consisted of some members who were also with us in 2008 or 2009, including Timothy Buttram, Laurel Hackley, and Harrison Kanzler, and new members Sarah Adcock, Aurora Camano, Joshua Cannon, Jillian Jones, Burcu Keane, Shannon Martino, Timothy McKillen, Gabrielle Payton, Rebecca Redhouse, Stephanie Selover, and Burcu Yıldırım. It is due to the talents and hard work of these excellent teams that we are able to report such positive results from our excavations. We would also like to thank the following institutions for financial and administrative support of the Çadır Höyük excavations: the National Science Foundation (BCS #1114811), Baylor University, Hood College, Memorial University, SUNY Cortland, and the University of New Hampshire.

Gregory McMahon (University of New Hampshire) who had served as the Associate Director of the project since its inception in 1993. Sharon Steadman (SUNY Cortland) now serves as Co-Director and remains in her position as Field Director, and Jennifer Ross (Hood College) now serves as the Associate Director of the project. The project is now fortunate to have two outstanding Assistant Directors, Marica Cassis (Memorial University) who is also the project's Byzantinist, and Benjamin Arbuckle (Baylor University) who oversees the specialist studies and is the project's archaeozoologist. Dr. Sinan Ünlüsoy (Yaşar University), has also been an outstanding contributor in his role as Assistant Director.

In 2011 McMahon, Ross, and Steadman undertook a study season while also converting the permit to McMahon's name; one major result of the study season was the conversion of area and trench names from the six-digit designation found in previous publications, to names reflecting a trench's position on the mound and within its area (Table 1, Fig. 2). As readers of past reports and articles may have found, the six-digit designations, reflecting a trench's position within the artificial grid generated in 1993, could be quite confusing. In addition, as the Çadır excavations opened more trenches each year (presently all or parts of 30 trenches are open on the mound), databases using these strings of numbers were becoming unwieldy. The 2012 season tested and demonstrated the wisdom of converting the trench numbering system. Our new field designations made the data management and processing much more practicable.

During our five-week season in 2009 we opened four trenches, and in our 2012 eight-week season we excavated in eleven trenches. In both seasons we excavated on the mound's summit (primarily Byzantine period), on the eastern slope (primarily second millennium), and on the lower and upper southern slope (Late Chalcolithic and Early Bronze Age in the former, Iron Age in the latter). The following reports on all these areas and periods.

THE CHALCOLITHIC AND EARLY BRONZE AGE

Until recently, the majority of work on the lower southern slope, our primary prehistoric area, had occurred during the 1998-2001 seasons. Six trenches offered close to 500 m^2 of horizontal exposure. Results have been previously reported in this journal (Gorny et al. 1999, 2000, 2002) and elsewhere (Steadman et al. 2007, 2008) and thus only a brief summary of work from those years is offered here. In 2004 a new 10 x 10 trench was opened (SES 1, formerly 770.910) which has offered a Late Chalcolithic (LC) to Early Bronze (EB) sequence (Table 2). It is this trench that will be the main focus of the discussion below.

Excavation Results Prior to 2009

Excavations on the lower southern slope during the 1998-2001 seasons revealed both public and domestic areas of the LC settlement. After passing through a stone and mudbrick gated entry and accompanying enclosure wall a visitor found a complex of

rooms and structures that do not appear to have been domestic in usage, lying directly ahead and to the left (west). Near the settlement's entrance rested a two-roomed structure we term the "Omphalos Building," named after the "Omphalos Bowl" so common in the Çadır ceramic assemblage (Steadman et al. 2008: 59, fig. 9). The ceramic assemblage in this room consisted of small, finely burnished Omphalos Bowls, cooking vessels, storage vessels, and other forms that may have been used for serving and consuming food (e.g. pitchers, larger bowls). Some appeared "brand new," i.e., unused, while others bore soot marks and scratches. The Omphalos Building rooms contained little domestic material; the function of this building appears to have been related to the use and possible distribution of ceramics in the settlement.

East of the gated entry was an open area, perhaps a public space or a courtyard associated with an as yet unexcavated structure to the north. East of this open area, primarily in Trench LSS 5 (formerly 770.900), was the "Burnt House and Courtyard." This domestic complex is so named due to the courtyard's hearth (F73) that caught fire and severely burned the courtyard and front entry area of the house (see Steadman et al. 2008: 55, fig. 6). As has been reported elsewhere, this house and courtyard were well provisioned with a full ceramic assemblage, lithics, textile-production tools, and other bone, stone, and metal objects (Gorny et al. 2002; Steadman et al. 2007, 2008; Steadman 2010).

The Transitional phase is so named as it covers the one to two centuries at the end of the fourth millennium when the central plateau's chronology "transitions" from Chalcolithic to Early Bronze Age. The exact timing and nature of the emergence of the Early Bronze Age on the plateau in general, and in the north central region in particular is fraught with difficulties (Schoop 2011; Steadman 2011; Sagona and Zimansky 2009).

During the Transitional phase a somewhat drastic change can be found on the eastern side of the exposure, in the area where the Burnt House and Courtyard stood. Here a new Transitional period house and courtyard were constructed, with what appears to be a different orientation from that which existed in the previous phase (Steadman 2010).

The Early Bronze Age occupation on the southern slope is difficult to trace in any detail due to its proximity to the surface and its battered nature resulting from natural erosion of the mound and later Iron Age/Byzantine structures tumbling down onto the exposed EB settlement. Nonetheless our excavations in the 1998-2001 seasons revealed a settlement much different from that which had come before. Small one-roomed and rather flimsy domestic structures (as many as five in Trenches LSS 5 and LSS 4) were scattered across what used to be the courtyards and Omphalos Building in previous phases (Gorny et al. 1999). The gated entry into the settlement had been completely blocked (F42 in LSS 4) after being narrowed during the Transitional period. Small firepits, at least six, were found in what used to be the Burnt Courtyard and vicinity. At least four child burials, contained in pithoi, were found in this stratum as well (Gorny et al. 1999). The finely made ceramics of previous phases were far less numerous, and more plain wares began to appear. Our best interpretation of these remains, before excavations commenced in SES 1 in 2004, was that the Çadır settlement had suffered some significant changes for the worse, though the cause of such changing circumstances remains under investigation.

2004-2012 Excavations in Trench SES 1 (Formerly 770.910) – Lower Southern and Southeastern Slope

Excavations were opened in Trench SES 1 with the goals of revealing the rest (or a larger portion of) the Burnt House in the LC stratum, and further exploring the Transitional and EB occupational phases (Table 2). We opened SES 1 as a 5 x 10 m over the course of the 2004 and 2006 seasons; it was expanded to its full 10 x 10 m exposure in 2008 with continued excavations across the trench in 2009 and 2012.

The Late Chalcolithic Burnt House Occupation

Though a wall of the Burnt House was uncovered in 2001 and 2004, it was not until the 2012 excavations that this area was more completely understood. An entrance or window into the Burnt House is found in a short, well-preserved and heavily burnt mudbrick north-south wall (F52 in LSS 5) which allowed access into the substantial Burnt House Courtyard (Fig. 3). Our 2004 excavations revealed a southern wall (running roughly east-west), F15 in SES 1, with large stones (ca. 30 x 30 cm) which we believed to be the outer (southern) wall to the Burnt House, though its short 2 m extent puzzled us. Just inside the intersection of F52 and F15 were two heavily burned mudbrick and plastered "steps" (F19, F20 in SES 1, ca. 45 x 70 cm) which we interpreted as furniture. In 2012 we came to understand the relationship and phasing of these features much more clearly. Rather than an exterior wall, we believe that F15 functioned as either a buttressing wall for a heavily damaged F57 which was the actual southern wall to the Burnt House, or alternatively as a doorway blockage for the same reason. It is possible that F19/20 steps led out of the house, through a doorway, into the southern courtyard. Thus, whether a doorway with F19-20 serving as steps leading out between F52/F57, or a wall corner where F52 and F57 intersected, this architectural complex needed shoring up after the fire. Residents therefore built the buttressing/blockage wall F15 to support this southwest corner of the Burnt House.

The latest/uppermost interior floor to the house (F21) was constructed of lime plaster. The debris level above it (L24) and material on the floor itself consisted of burnt material including hard baked soil, mudbrick, and ash possibly resulting in part from the fire event that destroyed the courtyard and front of the house. A smashed pot was recovered from the F21 floor. Below F21 was an intentional fill (L25) averaging 10 cm in depth, and below that was another plaster floor, the earliest excavated (F22 in this structure). In addition to ceramics (representative examples of which can be found in Steadman et al. 2007 and 2008), bone, pieces of shell, and worked obsidian and chert were recovered from this room – corresponding to the significant lithic remains recovered from the courtyard (Steadman et al. 2008: 57). Given the location of the Burnt House, very close to the northern balk, we have very little of the house's interior available to us. However, the 2009 and 2012 excavations revealed a vast southern courtyard that has provided a great deal of data related to household economics and production.

In 2009, in trench SES 1, we excavated two fire installations in the area south of the Burnt House, dating to the Transitional period (see below); it is now clear that they had their origins in the LC period. These two were accompanied by a third hearth (F63,

L74), uncovered in 2012, and all three appear to have been related to food production. These installations were positioned with their backs to one another in the center of the courtyard; the most northerly was a horseshoe-shaped hearth that produced a significant amount of lentils (see below). Hearth construction in this case consisted of first digging a rounded depression and lining it with clay (F66), possibly for the placement of a cooking pot, and then constructing the hearth superstructure over it (F55). The contents of the clay-lined depression (the clay was burnt to a hard surface), L73, produced the lentils in our palaeoethnobotanical samples. The larger circular fire installation southeast of it (Fig. 4) was built in a similar fashion, with the initial clay-lined depression (F67), covered by a possibly domed superstructure (the majority of the superstructure was lost down the slope, the remainder consisted of burned bricky material). The northern interior of the structure, above F67 (L66), consisted of deeply burned mudbrick and clay and some fire-cracked rock; the interior southern half of this feature was a semi-circular baked clay platform (heavily broken due to erosion) approximately 1.5-2 cm thick (F60). It appears to have been the platform from which one would place items into the heated northern interior of the structure; we have tentatively identified this feature as a bread oven. The third hearth, west of the two already described, was a squared U-shape (F63) and appears to have had at least one phase of rebuilding, possibly in the Transitional period (see below).

The floor of this courtyard space, like that of the Burnt House interior, had at least two construction phases, though both are heavily damaged by erosion. The earliest floor, F81, upon which the first hearth (F55) and the bread oven (F60) were most likely constructed (only traces of this floor remained), consisted of lime plaster. Following the enormous hearth fire in the more westerly courtyard, a new southern courtyard surface was laid in conjunction with the building of the F15 buttress/blockage wall. This latest Late Chalcolithic exterior surface consisted of a mudbrick foundation upon which a lime plaster floor was laid (F64) and the third, smallest, hearth, F63/L74, was constructed. This resurfacing covered two features, the first a large rectangular ashy area and associated burial (see below) that rested below the smallest hearth, and the second an activity area that had clearly been in use prior to the hearth fire, but was destroyed as a result of it; the tools and features associated with this activity area lead us to believe it was devoted to ceramic production.

This activity area (F83) is located against the F57 wall, under floor F64. F83, resting at the eastern end of wall F15 and just under it, was a shallow depression full of burnt clay pieces (Fig. 5), each roughly ovoid in shape, ca. 5 x 15 cm in size. These clay ovoid lumps had been burnt in the hearth fire that so affected this area. We believe that in their original unburnt form these clay ovoids were used in a pottery production process in the courtyard. This belief is bolstered by several other discoveries, including two features in the northeastern corner of the courtyard. One feature was a U-shaped storage bin (F70) constructed of mudbrick with an interior base of packed mudbrick (contents collected as L90). Inside the bin were two items: a bovine long bone ball joint; and several chunks of raw red ochre weighing over 500 grams. A small but significant percentage of Çadır Late Chalcolithic pottery has post-firing decorative paint of a reddish color (Steadman et al. 2007, 2008) most likely made from ochre. The other feature (F71, L92) was a deep egg-shaped depression, lined with hard-packed mudbrick, that may have once held a large

storage pot. A final feature in the courtyard was a large (45 x 30 cm) flat stone, placed on a tilt, resting between the F83 activity area with the ovoid clay lumps and one of the large hearths. The flat surface was smoothed from use and may have served both as a food preparation table and perhaps for the wedging of clay (removal of air bubbles and mixing). Three small smoothed stones, tentatively identified as burnishing stones, were recovered from the courtyard as well. After vessels were formed, partially dried, and then burnished, they may have been fired in one of the three hearths. While data on handmade ceramic production activity areas for Late Chalcolithic Anatolia is minimal, the collection of materials, including what were (once) apparently pre-formed raw clay ovoids, a stone suitable for wedging, burnishing stones, ochre, and three firing installations, including one area that might have been an open air kiln (see below), leads us to believe that pottery production was occurring, at least on the household level, in this courtyard. It is not surprising to find evidence of household-based ceramic production in the prehistoric levels of a site such as Çadır (e.g. Balfet 1965; DeBoer 1979; Rice 2005); what we cannot presently determine is whether production level was intra- or inter-household (see van der Leeuw 1984). The quantity of available clay, the large kiln, and the apparent public accessibility suggests that production was extra-household, but confirmation of this will have to wait for future excavations.

The hearth fire that destroyed the area baked several other possible clay lumps (heavily eroded) scattered on the earlier courtyard surface (F81) which may have also been part of the pottery production process. After the fire, residents laid a mudbrick foundation of approximately 10 cm, covering the F83 depression and the apparent other (now baked) clay lumps resting on F81, and then laid the new plaster floor (F64) which lipped up to wall F57 and to the most northerly hearth (F55/L67).

The courtyard produced a substantial amount of ceramic remains including reconstructable vessels (mainly cook ware and storage vessels), and a healthy assemblage of lithics (see below). We have reported on the Late Chalcolithic ceramic assemblage elsewhere (Steadman et al. 2007, 2008). The most southerly extent of the courtyard is heavily eroded as it rests at the modern edge of the mound; that it was not far from the Late Chalcolithic edge is demonstrated by a series of (Hittite and later) pits that dot the outer southern edge.

The Late Chalcolithic Burial

In the last days of excavation in 2012 a rectangular ashy area (F90/L100) was revealed, most likely associated with the earliest exposed courtyard floor F81. The proximity of this ashy area, which is also bounded by thin mudbrick walls (F90), to the pottery production activity area leads us to believe this may have been a kiln. With literally only hours remaining for excavation, we decided to excavate half of this feature to determine its function; we were not surprised to find an upside down pot just about 15 cm below the F81 courtyard surface. Further exposure revealed, however, that this was not a pot in the process of being fired, but rather a storage jar covering an infant burial (F99/L103). The burial (Fig. 6) appears to have been cut into the floor of the kiln but placed prior to the building of hearth F63/L74 and possibly prior to the construction of floor F64. If this stratigraphic analysis is correct (the mound erosion in this area makes

precise analysis difficult) then this burial is the first Late Chalcolithic burial recovered at Çadır Höyük. Its nature is quite different from the infant jar burials recovered from Early Bronze I contexts reported on previously (Gorny et al. 1999). While no artifacts were recovered with the infant (approximately one year in age), a 5 cm layer of ash inside the burial jar suggests that something was burned in connection with the installation of the infant and jar.

Late Chalcolithic ceramics have been reported on in previous publications (Steadman et al. 2007, 2008). The assemblage discovered in the 2009 and 2012 excavations does not deviate in any substantial way from what has already been noted in these and other Çadır Höyük excavation reports (e.g. Gorny et al. 2000, 2002).

The Transitional Period Occupation

As described above, the Transitional period house appears to rest on a different orientation than the Burnt House in the previous Late Chalcolithic phase, which is oriented on an east/west axis. The Transitional House, however (Fig. 7) appears to be situated on a north/south axis, and consisted of at least two rooms. Following the destruction of the Burnt House, the area appears to have been leveled with intentional fill (L20 and L22). Initially, a large concentration of stones discovered in the 2006 season (F29) appeared to signal the continuation of the Enclosure Wall (F22 in LSS 5; see Steadman et al. 2008: 60-61), thereby documenting that the Transitional House residents had created a breach in the F22 wall to build their house and courtyard. Furthermore, excavations in SES 1 discovered numerous stones (F18) seemingly "thrown" behind (north) of the Transitional House, and used in house wall foundations, further confirming the Transitional period disassembling of the Enclosure Wall. By the close of the 2009 excavations, the identity of the stone complex in F29 had become more complicated. While it still may represent the remnants of the extension of the F22 Enclosure Wall in Trench LSS 5, it also served two other purposes in the two succeeding periods: it may have functioned as a shoring-up device for the Transitional House walls, and it certainly functioned as a foundational level for the Early Bronze I occupation above the Transitional House remains (see below). The 2012 excavations in the Late Chalcolithic southern courtyard provide further evidence that the F22 Enclosure Wall may have simply been a connector between the Burnt House courtyard wall (see Fig. 3) and the gate area.

The Transitional House itself is apparently two-roomed, with a possible external (storage?) room on its western side. Within the interior domestic space, the smaller room is to the north (ca. 1.75 x 2 m; Room 1 on Fig. 7) and a larger one is to the south, measuring 2 m east/west with its north/south dimension lost to erosion down the mound. Based on the possible dimensions of the associated courtyard (see below) the southern room (Room 2) may have extended to 2 x 3 m. The walls of this house (F8, F9, F11, F30, F31) were substantial enough to support a second floor, particularly given the internal support provided by F11, thereby doubling the space available to house residents. The walls of this structure were built of mudbrick, almost pisé in some sections, though the northernmost wall (F9) contained stones at the foundation level (the southern leg of F8 was heavily eroded and may have once been more substantial). No clear floors were

discerned, but mudplaster against interior walls suggest repeated plasterings. Room interiors (L12 in the northern room and L13 in the southern room) contained a bricky fill with charcoal, bits of plaster, and small stones; ceramics included carinated bowls, fruitstands, and coarser ware cooking pots and jars. The eastern wall to the northernmost room is F30; F31, which is an eastward extension of the F11 cross wall may have also served as the entrance area into the house. A mudbrick and plaster rectangular feature, F32, just south of F31, may have served as a step or doorstop; since the courtyard is on the eastern side of the house, it is logical that the door would have been located here. The southern extension of the easternmost wall was lost in slope erosion.

Until our 2009 excavations in Trench SES 1 we believed that the courtyard on the west side of the Transitional House, directly above that of the Burnt House, belonged to the Transitional House (we theorized the doorway into the western courtyard was at the southern end of the house, lost to mound erosion). However, the courtyard already described above, discovered in 2009, and on the eastern side of the Transitional House appears to have been the primary work space for this household.

The Transitional period courtyard surface (L69, L70) consisted of hard-packed clay and mud, flecked with charcoal, bone, and some pockets of ash. Unlike the courtyard of the LC Burnt House, there were exceedingly few examples of lithic debitage and tools. Lithic production was apparently not carried out in this open space. This courtyard seems rather to have been devoted to food preparation. Two of the three previously described LC fire installations continued to be used in the Transitional period: the smaller horseshoe-shaped hearth (F55/L67) opening to the north, and the larger circular (possible) bread oven to its southeast (F60/L66). A third built feature, a plastered mudbrick platform, or table (F58) was located in proximity to both fire installations. The smaller horseshoe-shaped hearth was located 1.5-2 m from the possible doorway of the Transitional House, suggesting that it was used by house residents. Next to, and inside of, the smaller hearth were several vessels; two appear to have been coarse wide-mouthed bowls, and another may have been a jar. At least one or two more vessels were found in the vicinity of the hearth but their forms were not discernible. The “table” (F58) was in close proximity to the hearth; it may have been used as a location to place cooked foods, plates, or served as a seating area for those engaged in cooking activities. The foundations of the Transitional House covered the large flat stone that was so prominent in the LC courtyard, further supporting the suggestion that its function was related to ceramic production; any food production utility it may have had was replaced by the “table” on the eastern side of the courtyard.

The second, larger fire installation (F60, L66), southeast of the hearth, was described above. As was the case in the LC, this larger oven may have been used by a number of community members, beyond those living in the Transitional House. The 4 x 5 m courtyard (the 5 m measurement is speculative due to erosional damage at the southern edge of the courtyard) is bordered on the west by the Transitional House, and on the east by a mudbrick wall (F59; perhaps constructed very late in the Transitional Period). The northern border of F59 appears to be F57, the remnants of the Burnt House wall built in the LC period.

An interesting feature associated with F59 was an apparent foundation deposit discovered after this enormous mudbrick double wall (with Early Bronze addition, see below) was finally removed in 2012. Builders dug a small pit under what would become the southern extent of the wall and placed small stones in a circle; within these stones were laid lithic flakes, plaster balls, pottery sherds and a bone, all covered by a rectangular concave plaster and clay cap. Another possible deposit includes a collection of Transitional or possibly very early Early Bronze I ceramics placed in a pit in the foundation of F59 at its more northern extent (see Fig. 9 below). Whether this latter was a serendipitous deposit of trash or an actual intentional deposit is unclear. It did, however, produce one of the most unusual vessels from the post-LC period yet discovered at the site (see below).

Transitional Phase Ceramics

The Transitional Phase ceramic assemblage (Fig. 8) has been reported in several other publications (Steadman et al. 2007, 2008), and the 2009-2012 ceramics offer no deviation from these previous descriptions. In general Late Chalcolithic surface treatments and forms continue into the Transitional period, featuring black, orange, and red slipped and burnished exteriors and interiors, though the dominant black of the Late Chalcolithic has given way to lighter colors ranging from buff to red. Fruitstands continue to occur in the assemblage, and the predominant forms are bowls, many carinated just below the rim, and jars with out-turned rims. The omphalos bowls so common in the LC are far rarer, and incised decoration is found but is very occasional. The incised juglet (Fig. 8n) discovered under F59 is unique (at Çadır Höyük) in its decoration and form; its distinctiveness lends credence to the notion that it may have formed some sort of foundation deposit.

The Early Bronze I Occupation

Between the Transitional and Early Bronze I occupation residents seem to have engaged in leveling the residential area to some extent (in Trench SES 1). As noted above, the EB occupation in the Burnt House courtyard area and westward consisted of small single-roomed structures and firepits; jar burials containing infants may have been placed in the area by residents or by others passing through when the area was (possibly) unoccupied. Residents living in the SES 1 trench area (Fig. 9) lived in slightly better circumstances than their neighbors further west on the mound.

The 2004 excavations in SES 1revealed more of these somewhat precarious walls (generally a foundation of head-sized stones placed in packed mud to support a mud/mudbrick superstructure), also discovered in the trenches to the west (LSS 5 and LSS 4). The EB I walls in SES 1 were preserved only in remnants (F3 and F4), extending no more than 1.5 m, due in part to their proximity to the surface and damage done to this occupation by the later collapse of Iron Age and Byzantine walls at the mound's summit. No surfaces were found associated with these wall remnants, and the matrix (L2, L7, L8) was composed of silty soil with collapsed brick, probably a result of erosional processes.

In addition to the wall fragments noted above, portions of two additional EB I rooms were excavated in SES 1; these rooms, although built adjacent to one another, perhaps even partially sharing a wall, appear not to be part of the same structure. The structure (Room 1 on plan) in the southwestern area of the trench is composed only of two wall fragments (F23 forms the northern wall, F25 the western) built up against the substantial EB I F35 as its eastern boundary. The entire southern portion of this structure is lost to mound erosion. The mudbricks in these walls were yellow/orange and the house, or at least this room, had burned apparently quite fiercely. One feature that rested on the packed mud floor (F27) was a rectangular area (F26, not on plan) in the northwest corner, near but not against F25. F26 consisted of a deeply burned and greasy deposit approximately 3-4 cm thick. It was consistent with two similar deposits discovered in the Late Chalcolithic Burnt House Courtyard that were identified as burned piles of organic matter (perhaps once held in a basket). It is possible that F26 was a similar pile of organic matter resting on a rectangular mat or in a rectangular basket.

The other EB I structure, Room 2, was located to the north and again, only a partial room was recoverable. This room also appears to have used the F35 wall as its eastern boundary (see below for additional discussion of F35). The southern room wall (F37) extends out from F35 westward. It is possible that the western boundary of this room consisted of the very ephemeral F3 and F4 walls (noted above); the gap between F3 and F4 may have served as the doorway. Within this room two floors (F41 and F43), seen clearly in the eastern half of the room, were built using the F29 stone feature as a foundation (note that in Fig. 9, F41 and 43 would be located where F29 is indicated). Resting on these floors, tucked into the F35/F37 corner, was a torso-sized stone with a flat top (Fig. 10). Plaster was laid under and around the stone, and it clearly served as some type of furniture within this room. Both floors showed evidence of burning; one of these conflagrations was likely the same one that so severely burned Room 1 to the south. A posthole (F42) was discovered cut into F43 (plastered over when the F41 floor was laid above F43); whether the posthole represented furniture placement, held a pole functioning as a roof support, or served some other purpose is not clear given the limited area of the room excavated. Lying on both of these floors were smashed vessels, perhaps broken during the fire events and left in place. The F43 floor plaster appears to have been laid directly onto the F29 stone feature (that in this case served as a leveling device for this house). Ashy deposit just under the plaster and on the stones indicates that yet a third fire event, in this case the first chronologically, preceded the building of the structure. One interesting find in the F29 stone feature was a ceramic “box” with incised decoration (Fig. 11). The box-like shape was formed and then a heavy slip (several millimeters thick) was applied, burnished, and then incised in geometric (lines, zig zags) decoration; a hole piercing one corner suggests that this object may have once been suspended by a string. It does not appear to be a utilitarian item, but its fragmented nature prevents further interpretation. Its location within F29 suggests that it dates anywhere from the Transitional to the EB I period.

The open courtyard area to the west of Room 1 and south of Room 2 consisted of a packed mud surface (L50) with a significant amount of broken pottery, charcoal deposits, and bone mixed into the surface. Also present in the upper portion of L50 were

three postholes (F47, F50 and F51, not on plan) – these may have served as supports for a small lean-to, perhaps to cover storage containers or for shading someone working in the courtyard. To the southeast of the postholes was a shallow depression (F36) which offered several broken vessels (including one that may have contained seeds [F38]) and an ashy deposit. Rather than a trash pit, this may have been a small depression cut into the courtyard for the placement of vessels (whether for storage or cooking is unclear).

The rather substantial F35 wall runs on a north/south axis, extending from the north balk until it is lost both to erosion and to pit activity. In the 2009 excavations we not only discovered that F35 had been built to encompass the Transitional phase F59, but that it was also best identified as two separate walls, each a single brick wide, built up against one another. It may be that the two walls separate different residential compounds, but documenting this will need to wait until the adjacent eastern trench is opened.

Our 2012 excavations on the eastern side of SES 1 revealed the type of more wobbly EB I architecture found across the breadth of the prehistoric exposure in previous years of excavation (Steadman et al. 2008). Most notable are the remnants of an EB 1 mudbrick apsidal wall (F92) along the eastern balk, and the remains of very eroded mudbricks (F96) potentially apsidal in shape in the northern area of the trench (perhaps more likely to have served as a storage area than a domestic structure) (Fig. 9). Resting against the interior of the F92 wall, and mostly in the eastern balk, was a pithos burial (F74) of a juvenile female (approximately age 14). This practice of placing pithos burials inside a room, often in a corner, is one we have seen several times at Çadır (Gorny et al. 1999; Steadman et al. 2008). These pithoi do not appear to have been buried below the house floor but rather placed on the floor leaning against a wall. This would imply placement after abandonment of the structure; it is possible that these burials should be dated to the very late EB I or perhaps the EB II period. At present the only strong evidence of EB II presence on the lower southern slope of the mound consists of refuse pits, and thus during the mid-later third millennium BCE this area of the mound may have become a refuse dump and/or short-term cemetery for residents or for mobile groups camping for some time at or near the settlement.

The Early Bronze I Ceramics

The Early Bronze I ceramics from the rooms excavated in Trench SES 1 provide an assemblage that combines vessels that would fit well into an LC or Transitional assemblage with those that come from the “untreated” and coarser category that becomes more common in the EB I assemblage at Çadır. A selection of these types is provided here (Fig. 12), including the vessels from the Early Bronze I floors, F41 and F43. Ceramic forms included jars, small cups, hole-mouth jars, cooking pots, and carinated bowls; also present were fruitstands. Surface treatment included the normal slip and burnish, with external surfaces ranging from the black so common from the Late Chalcolithic, to red, orange, and brown. A few examples of an unusual yellow-buff exterior with a dark yellow interior, both slipped and burnished, occurred. The higher percentage of untreated (plain surface) vessels, found in the EB assemblage in the other trenches, was also present here. Decoration included the very odd post-firing paint we have seen also in the LC (Steadman et al. 2007: 397-99) (it is possible that these rare painted EB I vessels are

heirlooms and not representative of techniques employed in the EB I). More common decoration includes finger pinching, usually on large pots, and an incised design best described as a rope pattern. Along with the normal chaff and white grit temper, mica was also apparent; it is more likely that this micaceous ware derives not from the addition of temper but from a different clay source that includes this mineral naturally – this clay source was not exploited, or at least only very rarely, in the Late Chalcolithic.

2012 Excavations in Trenches LSS 3, USS 9, USS 10

After a hiatus of 11 years, we reopened Trench LSS 3 (formerly 770.880) which had previously (in 2000-2001) offered an LC mudbrick and stone platform and mudbrick walls (forming a pathway heading from southwest to northeast), the remains of a Hittite Empire house (Gorny et al. 2002), and two large EB I-II refuse pits. We hoped, in the 2012 season, to better understand the Late Chalcolithic to Hittite stratigraphy in this area, complicated in the 2000-2001 excavation seasons by extensive disturbance by large pits dug during the Middle Iron Age. Unfortunately the 2012 season revealed even more extensive Iron Age pit construction. At least eight pits, many heavily plastered, were discovered in 2012 overlying the Hittite and earlier occupation. Flotation samples from these pits (F19-21, 24-26, 30, 36-37) indicate they were used for the storage of grains, mainly wheat and barley.

Careful excavation around the remains of the Hittite structure (reported in Gorny et al. 2002) showed that it was built into an already existent prehistoric complex (whether LC or Transitional is as yet unclear); Hittite builders used a substantial mudbrick and stone structure as a support for their back (northernmost) wall. The complex of features (Fig. 13) into which this Hittite structure was built is an utter enigma at present. A collection of mudbrick and stone walls (F 32-33, 42-43), with one stone construction consisting of large stones laid in a prone, overlapping pattern (F33), appear to connect to a deep, plastered, pit area (F38) in the northwest corner of LSS 3, directly under the numerous Iron Age pits discussed above. Identifying the purpose of this complex (domestic, public, ritual) and its relationship to the mudbrick platform and LC buildings to the west must await further excavation in the coming seasons.

In similar fashion to LSS 3, we reopened USS 9 (formerly 780.890) after a decade-long hiatus, and also newly opened USS 10 directly to its east (this small trench yielded two heavily eroded mudbrick walls likely dating to the EB I period). Our purpose here was to understand the relationship between the significant Hittite wall (F26) that stands at the intersection between USS 9 and USS 4 (see Gorny 2006), and the earlier pre-Hittite deposits below it. At the base of F26 in Trench USS 9 (Fig. 14) were a series of very substantial but heavily eroded EB I (based on ceramics) walls (F32/34) that seemed to enclose a packed mudbrick courtyard (F36) with at least one feature (F33) that may have been used for storage, or possibly functioned as a small tower. F33 had a thin mudbrick wall surrounding a base of burnt mudbrick/clay underlain by a hard-packed layer of clean clay. The opening between the two large mudbrick walls may have offered a very small passage into the area, but evidence of a linear trench (F38) passing through the opening, and running along the base of the interior of wall F32 suggests that it may

have also functioned as a drainage area channeling water out of the courtyard and flowing to the west. Outside the walls was another packed mudbrick open area (F37) heavily damaged by mound erosion. If this complex is a major EB I set of walls and installations, then it would give a whole new spatial interpretation to the EB I settlement at Çadır. The substantial population occupying the lower southern slope in the LC and Transitional periods may have abandoned that area to move up the mound and inside newly constructed mudbrick perimeter walls by the EB I period, leaving the lower southern slope available for either squatters (who then left infant and juvenile burials behind) or EB I residents not fortunate enough to reside inside the walls higher up the mound.

THE SECOND MILLENNIUM ON THE EASTERN SLOPE

We first opened excavations on the eastern slope in 1994 in a 2 x 20 m step trench designed to gain an understanding of the occupational sequence at Çadır Höyük as flood waters from the shortly-to-be-completed Gelingüllü Dam were expected to inundate the site. Happily this circumstance did not come to pass and we were able to expand our excavations on the eastern slope. Though the designation of "step trench" has remained, our excavation on the eastern slope is now in the form of large-scale horizontal exposure. The eastern slope mainly features second and late third millennium occupation.

Excavation Results Prior to 2012

Eastern slope excavations have been reported on in previous publications (e.g. Gorny et al. 1995; Paley 2005, 2006; and most extensively by Gorny 2006). Our 2012 excavations helped us to clarify some of the issues raised and discussed in previous reports.

Architectural Sequence in the Step Trench (East Slope)

There is a significant second millennium occupation at Çadır including Middle Bronze (MB) and Late Bronze Age remains. The majority of the MB materials were retrieved from the Step Trench, while Late Bronze occupation is extant in both the Step Trench and on the southern slope.

In 1994 the easternmost two of the four current trenches (ST 9 and ST 8 [formerly 800.940 and 800.930]) were opened as a 2 x 20 m step trench, excavated in 2 x 2 m steps; mainly Late Bronze and some Iron Age remains were recovered. After a hiatus of six years, ST 8 was reopened in 2001, and by the 2002 season both ST 8 and ST 9 had been expanded to 5 x 10 m each. During the 2002-2005 seasons, 2 or 4 meter-wide sections of the two more westerly trenches were also newly opened (ST 7 and ST 6). The upper and most westerly of the two trenches (ST 6) primarily provided Iron Age and Byzantine remains while the more easterly of the two trenches (ST 7) is mostly second millennium in character.

The lowest trench, ST 9, excavated primarily in 1994, contained very little in the way of architecture aside from one wall foundation (F5), a plaster floor (F10), and one

extremely large stone lying on its side at the top (westward) edge of the trench. We identified this stone, possibly worked, as a massive doorjamb or part of a standing stone installation; though undated, we believe these features to be pre-Iron Age.

Early Bronze III

The earliest major architecture in the lower/easterly half of the Step Trench (Fig. 15) is F42 in Trench ST 8 which is the first, and lowest, in what appear to be four phases of successively built walls, probably best identified as settlement perimeter (defensive?) walls. F42 is built on a mainly northwest/southeast orientation and runs across the lower eastern portion of Trench ST 8. This wall, built of fist- and head-sized stones, is approximately 1 m wide. F42 appears to be some sort of perimeter wall ringing the mound and dates to the EB III period. There is a possibility that it is contemporary with wall F26 in USS 9 on the upper southern slope. F42 may have served as a type of shoring on the slope offering a secure footing upon which to build additional walls, perpendicular to F42, running up the slope on an east/west axis. It was certainly used for this purpose in the MB when the large F7 wall was built (see below). There is a semi-circular section missing from F42, perhaps a result of stone-robbing for construction of another wall, or there may have once been some sort of pillar or circular structure here. F42 intersects with F43, a poorly built wall jutting out of the southern balk at the intersection of trenches ST 8 and ST 9; F43 may have been a southward extension of F42.

In 2002, a 2 x 2 m sounding excavated in the southwest corner of ST 8 revealed additional EB III architectural features including more substantial walls (F40 and F32 on Fig. 16). A C^{14} sample yielded a date of ca. 2670-2300 BCE (Beta #180275), but it was the ceramic assemblage that primarily provided our dating of these walls. Given the small exposure in the sounding it is impossible to determine the function of F32/40, including whether they are part of domestic or public architecture. The size of the EB III features, and the effort that went into constructing them on the eastern slope, suggests that the EB III occupation here was not insignificant.

Middle Bronze I-II

Our most notable MB architectural remains are found in the Step Trench. In Trench ST 8 an MB II wall, F7, was built perpendicular to the EB III F42 perimeter wall (with some of F7 overlapping F42); given the small amount of deposit between the two it is likely that F7 was built soon after F42, making intentional use of the EB III architecture. Wall F7 is impressive in size, with a width of 2 m and preserved up to four courses in places. Its function is yet to be determined, but it is possible that it forms the southern side of a large gated entry into the MB II settlement. The suggestion that F7 is one side of a large gated entry is supported by the discovery of a thick plaster floor, F41, that lipped up onto the lowest course of stones in F7. Though only a portion of this plaster was preserved, it was clearly laid after the building of F7 and seemingly used in concert with the stone structure. If this is a large MB II gateway, the corresponding gate wall must be located to the north in the other 5-meter extent of the trench. Though we opened this half of ST 8 in 2012, we did not reach the necessary depth, nor perhaps is the trench

positioned far enough east. Further investigation in the 2013 season may yield more results.

A second complex of MB II architecture was discovered in the sounding, mentioned above. Wall F36 (not on plan), above F40 in Fig 15, ran on an east/west axis and extended beyond the confines of the 2 x 2 m sounding, into the eastern and southern balks. Contemporary with this wall is F39 (Fig. 15), a collection of laid stones forming what appears to be a road or passageway leading up the mound. At some point in the MB II occupation a fire raced through the area, and the passageway was blocked by F36.

The third building phase in this four-phase complex was accomplished in the MB I (dated using ceramics) and consists of a wall designated F6 (Fig. 15) in Trench ST 8. This substantial wall runs perpendicular to F7, and slightly above it, though the southern extent of F6 rests directly on F7, suggesting little passage of time between the two construction phases. Clearly, if the MB II F7 wall defined a gateway into the settlement, by the MB I phase it was decided that this entry should be blocked by constructing F6 (note that this wall was identified as a casemate wall in a previous publication [Gorny 2006], but our excavations as yet have not been able to clearly confirm this interpretation). The F6 wall is topped by mudbrick that stands extant for 1.6 m until it was chopped off for the foundations of wall F20 (discussed below). One interesting discovery associated with F6 was a small collection of bovine horns buried next to it. Whether this was a foundation deposit, perhaps in recognition of sealing the gateway, is unclear, but the presence of this collection of horns does not appear to be accidental. Though small finds were rare from the Step Trench, our three finest metal pieces came from the vicinity of F6, one a bronze knife blade reported on earlier (Gorny 1995: 75, 97, Fig. 17), and a second metal blade, and a copper pin discovered in 2003. Wall F6 is visible only in part as it is currently covered by the upper step in the trench.

Late Middle Bronze/Old Hittite

The fourth and final major building phase in this complex is comprised of F20, a very large wall dating to the Old Hittite period (Fig. 15). We initially exposed this wall in 2001, at which time it stood 1.2 m wide and was preserved up to a height of 2 m. It was built of very large fieldstones with smaller stones used as packing in a packed mud mortar. In addition to Old Hittite pottery, C^{14} samples (Beta #159389) give a date range in the first half of the second millennium BCE (ca. 1910-1530 BCE). After it was exposed we noted that the function of the wall was indeterminate but recognized it as far too large to be the outer wall of a simple domestic structure. Its size, construction, and orientation suggest that it was, like the earlier structures below it, best identified as some sort of exterior perimeter or defensive wall. Our 2012 excavations in ST 8 dramatically enhanced our understanding of F20. In 2012 we widened the ST 7 trench to its full 10 m extent on the north-south axis, and by the close of the season we had exposed a significantly enlarged F20 wall. This wall, heavily robbed of many of its stones in antiquity (most likely to build walls found in trench ST 7 to the west) revealed itself to be a 4-meter wide casemate wall (Fig. 16) with mudbrick and (head-sized) stones used as fill between the head- and torso-sized outer wall stones. This F20 wall, when first exposed in 2001, did not appear as a casemate wall due to two factors: stone-robbing and mound erosion. This

wall was built on a significant slope, and the outer (eastern) edge had collapsed down the mound in places and had been aided in this by stone robbing, probably in the Iron Age when numerous walls higher on the mound were constructed. It was not until we expanded the trench northward in 2012 that the outermost edge of this massive wall was revealed, still robbed out in places but clearly demonstrating its casemate construction. The ceramics from the 2012 excavations are also helpful in dating the construction; they suggest that the wall was still existent in the Hittite Empire period. While the inner fill in the casemate construction was nearly devoid of any artifactual material, ceramics from just above and on either side consist of Hittite Drab Ware (both plain and with red paint in broad stripes). Based on ten years of excavation we may now speculate that this wall was first constructed in the late MB/Old Hittite period in the earlier second millennium (based on the radiocarbon date noted above). F20 then may have been refurbished or enlarged in the Hittite Empire period, based on the ceramics associated with its newest exposure. The existence of this Hittite period casemate wall would suggest that it contains a substantial Old Hittite/Hittite Empire period settlement which still rests under the later occupation in trenches ST 6-8.

Further up the slope, in Trench ST 7, excavations in 2004-2005 revealed two rooms, set side by side (Fig. 17). These walls, F3 and F17, are built up against one another and form the northern and southern (respectively) walls of the two rooms. The nature of these rooms is unclear, though the one to the north had a hearth and a pit. Just outside the exterior wall of this structure, to the east, was a type of mudbrick step, or possibly a bench, on which vessels once rested; these ceramics are Old Hittite in form and style. Although both rooms were fairly clean (the more southerly room produced nothing more than sherds and bone), a pit (F41, not shown) in the northern room offered several interesting small finds, including an eight-knobbed pot, a small piece of bone inlay (Gorny 2006: 49-50, Figs. 8-9), and a bone flute. Household ritual in this period sometimes occasioned the use of a musical instrument and other paraphernalia that, when no longer needed, could be disposed of as “trash” in a sort of *favissa* (ritual deposit). This might explain the presence of these items in this pit. The other major discovery from this trench was a broken Old Hittite stamp seal (Gorny 2006: 50, Fig. 10) that has a date range of 1700-1650 BCE. The majority of this complex was covered in a layer of burned mudbrick. The source of this mudbrick and the cause of the destruction is still unclear; it is perhaps most likely that the mudbrick resulted from the collapse of the house walls themselves after an accidental fire event.

That these houses represent perhaps the easternmost Old Hittite occupation of Çadır, resting inside the MB/Old Hittite walls discussed above, was further confirmed by our 2012 excavations in ST 7. This trench was also widened to its full 10 x 10 m extent (extending the trench to the north). The outermost complex of walls on the eastern side of the houses, named F 11, 12, and 23 (Fig. 17) in 2005, was seen in 2012 to continue northwest (F48) and is rather substantial in construction, with a significant stone base at least three courses high, and a mudbrick superstructure at least five bricks high (note that the stones from this wall were also robbed out in antiquity, most likely for construction of Iron Age walls in ST 7 and ST 6). That this wall was a perimeter wall to the early second millennium settlement is demonstrated by two factors; the first is the multitude of broken

ceramics found at the base of the wall. Though several vessels may have rested on the steps leading up to the houses (see above), in other areas complete or possibly broken vessels appear to have been dumped over the wall. Our 2012 excavations recovered part of well over a dozen vessels, perhaps as many as two dozen, at the base of wall F48. The other indicator is a series of pits dotting what might have been a road or alley below this wall, perhaps used for refuse disposal, although they were fairly devoid of artifacts. The second millennium occupation on the eastern slope of the mound appears to consist of a series of outer perimeter walls (dating from the EB III to Hittite Empire periods) and possibly a major Middle Bronze gate construction. Inside of these are domestic structures, likely dating to the earlier second millennium (Old Hittite) period.

Late Bronze Age/Hittite Empire Period

At present our data on the Hittite Empire period in the Step Trench are more limited. Some discoveries in ST 6 (discussed in Gorny 2006) demonstrate that Hittite Empire occupation awaits recovery on the eastern slope. That the F20/42 casemate wall was used in the Hittite Empire period is further evidence of this. A Hittite Empire period wall on the northern slope has also been excavated (Gorny 2006), while the Hittite house and major Hittite Empire wall on the upper southern slope (F26 in USS 9) have been mentioned above and reported on previously (Gorny et al. 2002; Gorny 2006). It is worth noting here that our 2012 excavations in USS 9 and USS 10 demonstrated that the major F26 wall had three building phases. The earliest apparently dates to the Early Bronze period, probably late in the third millennium (excavation behind/north of this wall will confirm dating). At some point in the early second millennium (Old Hittite period) the wall was rebuilt; by the Hittite Empire period, in the later second millennium, the top of the Old Hittite wall was leveled, plastered, and a new superstructure was built. This substantial wall (over a meter wide in some places and now standing over 3 m high) represents three building phases spanning a millennium of occupation at Çadır. Excavations in USS 3 and USS 4 in the coming seasons should offer excellent insight as to the nature of the settlements inside this wall.

Second Millennium Ceramics and Small Finds

Given that our second millennium levels are only now, since 2012, being explored in broad horizontal exposures, we have just begun to analyze and establish the second millennium ceramic sequence at Çadır. Offered here (Fig. 18) are a few examples from Step Trench levels dating (based on style, form, and radiocarbon dating) to the Late Middle Bronze/Old Hittite period. Two small finds from the 2012 season are of note. Several pottery handles, one shown in Fig. 19a, had been smoothed around the broken edges to create a type of “sander” or more likely a smoother for plastered surfaces. A second discovery was a stamp seal (Fig. 19b) recovered from the fill in front of the major F48 wall in Trench ST 7. This stamp seal, Middle-Late Bronze Age in date, is the second one discovered in this trench (see Gorny 2006: 50, fig. 10).

THE IRON AGE OCCUPATION

Our major 2012 Iron Age operations are on the upper southern slope, but Middle and Late Iron constructions have been recovered on the eastern Step Trench slope as well.

The Iron Age Occupation in ST 7 – Eastern Slope Step Trench

In ST 7 and ST 6, both of which have been excavated during a number of seasons prior to 2012, there are a series of Iron Age period walls dating primarily to the Middle and Late Iron Age (Fig. 17, F1-2 wall stubs in SW steps). The remnant of what was likely a buttress for the more southerly wall was excavated at the western edge of ST 7 in 2012 (buttress F42, not shown on plan). It is very likely that the construction of these Iron Age period walls is responsible for the significant robbing of Hittite and Middle Bronze period stone walls (mentioned above) built lower on the eastern mound slope in areas apparently unused during the Iron Age occupation.

The Iron Age Occupation in USS 4 (Formerly 790.890) – Upper Southern Slope

The results from previous seasons of excavation in USS 4 (formerly 790.890), the main Iron Age trench at Çadır Höyük, were reported in *Anatolica* 36 (Ross 2010); for this reason, only a brief summary of those results will be provided here, with more detail on the resumption of excavation in 2012.

Iron Age excavations at Çadır began in 2001 on the upper southern slope. Ceramics found in the site survey had suggested the possibility of a full sequence of Early Iron, Middle Iron, and Late Iron Age layers. Such a long sequence is unusual on the Anatolian Plateau, where the collapse of the Hittites at the end of the Late Bronze Age, and the rise of the Phrygian empire in the Iron Age is marked by discontinuity of occupation and cultural materials. The USS 4 trench was therefore opened (first as a 5 x 10 m, then extended to a full 10 x 10 m square) in hopes of a full Iron Age architectural and artifactual sequence. USS 4 has now been excavated to a depth of over 5 m, with 2 to 3 m each of Late and Middle Iron Age accumulation, and multiple architectural phases belonging to each period. A small sounding in 2006 at the south end of the trench reached Early Iron levels.

The limited Early Iron Age levels reached in the 5 x 2 m 2006 sounding revealed a series of plaster features, some with associated architecture. Among the features were a number of plaster-lined pits, at least one of which lipped up along a mudbrick half-wall. This was thought, at the time, to be the edge of a semi-subterranean structure, characteristic of other Early Iron Age sites on the plateau, including Gordion (Voigt and Henrickson 2000). Significant trash deposits also characterize this phase, suggesting that considerable dumping took place at the edge of the site.

Middle and Late Iron remains excavated through 2009, in contrast, were extensive. The earliest Middle Iron Age architecture in USS 4 comprises a series of stone foundations with associated mud and mudbrick features, and thickly-plastered depressions. In our previous publication (Ross 2010), these features were tentatively

dated to the end of the Early Iron Age, but the 2012 finds require us to revise that date to somewhat later (see below). The architectural complex appears to have included both enclosed and outdoor work areas, with at least one phase of rebuilding of a mud platform and brick bins. Associated with the structure were painted and undecorated ceramics, spindle whorls, and unbaked loom weights, allowing a partial reconstruction of a textile production area (see below).

This complex was later replaced by a more substantial set of well-plastered depressions (each about 2 in diameter, with plaster several centimeters thick), in association with stone-paved areas, all presumably part of an outdoor working area. Still later, these were succeeded by a more ephemeral group of walls with thin stone foundations, apparently demarcating several spaces which may, still, have been largely outdoors.

The Late Iron Age levels in USS 4 feature several phases of stone and mudbrick architecture, and a possible gate area. As we are high on the slope in these levels, very few of the walls extend for more than one or two meters. Just below the Byzantine structures on the mound top were some deep pit features, some containing very fine bichrome and polychrome painted jars. In order to get a better sense of the Late Iron Age town, it will be necessary to excavate below the Byzantine citadel; the area at the edge, in USS 4, seems largely to contain work areas (with considerable amounts of slag) and storage.

The 2012 Season Excavations in USS 4: Early to Middle Iron Age

During the 2012 season, the earliest layers excavated across the entire trench, dating to the Early Iron Age, were two phases of pits. Some were left in place for excavation in 2013 as were several architectural features; four others were excavated: pits F144, 145, 150 and 151. Pit F144, in the north central part of Trench USS 4, offered evidence of multiple phases of plastering with its earliest use in the Early Iron Age, and continued in use into the Middle Iron Age. At its base was a mud lining, and raised edge, up to 1 m in thickness. This may be another semi-subterranean structure like that found in 2006 at the southwestern corner of the trench. A second early pit in the northern corner of the trench, F145, consisted of multiple phases of plastering; a layer of clay was laid atop the plaster, and in the center was a large flat stone. Pit F150, located near the southwestern edge of the trench, was a round 20 cm deep pit, with plaster lining, filled with pebbles and earth, while F151 was an ash-filled depression with a concentration of broken pottery atop it.

Above these features was a slightly later pit phase. F147, in the southern section of the trench, had multiple layers of plaster with brick at its base. F148, in the center, was the earliest pit with multiple periods of use, filled with charcoal and ash. F149, to its west, consisted of a rectangular depression lined with plaster, also filled with charcoal and ash.

Above the pit features was a phase of somewhat ephemeral architecture (Fig. 20), consisting of a mudbrick wall, F130, which was at least 3 m in length and built on a northwest-southeast axis. A stone cross-wall abutted its western side; this stone wall (F128) included two reused grinding slabs. The resulting room had a clay floor (F143)

with a reused pivot stone or mortar embedded within it. Belonging to a second phase of use, atop this floor, was a mudbrick platform, with yellow and reddish mudbricks laid in an irregular pattern (F126). About 2 x 1 m in area, this low platform may have served as a work area or a type of furniture. A group of probably contemporary stone foundations came to a corner in the southeastern section of the trench. An ephemeral area of tamped earth (F140) on the eastern side of the mudbrick wall may have served as an exterior surface during the life of the structure; it was heavily disturbed by later pit-digging (see below).

A transitional layer bridging the Early and Middle Iron Age offers still more pits, this time anticipating in their form and construction the larger number of Middle Iron Age pits above. These transitional pit features were found only on the eastern side of the trench; it is possible that the architecture on the west side was contemporary to the pit usage to the east, or that the by then abandoned architecture proved too thick or challenging for the pit-diggers.

In the northeastern corner of the trench was F134, a large (over 2 m diameter) pit with alternating layers of clay and ash; it was unusual for its lack of plaster, and may be more constitutive of a residential or street context. Two other pits, in the southeastern section of the trench, are plaster-lined: F141, just next to the Early Iron Age mudbrick wall (F 130), had a thick layer of wood, burnt, set at a steep incline, at its base; F135 was also enigmatic, comprised of a thin layer of gritty plaster that had been stained orange, whether intentionally, by use, or through depositional processes. An additional feature sat between F141 and 135: the clay cast (F137) of a possible leather object, approximately 30 cm in diameter. A great deal of ash sat above the clay, suggesting that whatever left this cast had burnt; leather is suggested by the possible rivet holes left in the cast, and by the tools and features of the Middle Iron Age layers reported previously (Ross 2010) and below.

The Middle Iron Age levels offered evidence of consistent non-domestic usage of this area of the settlement. Above a thick layer of fill that was relatively rich in ceramics and small finds (see below) were more pits; these were more clearly Middle Iron Age in date, though still of unclear function. Each of the pits in this early Middle Iron Age level was circular or ovoid in shape, ranging from 1 to 1.5 m in diameter. Some were deep, at 20 cm or more, and reused over a considerable period of time, with multiple layers of plaster visible both at the edges of and within each. Some of the pits cut one another, suggesting that pre-existing pits would be replaced when need arose. From west to east, eight pits appear to have been at least partly contemporary: F122/127, F123/131, F120, F121, F118, F119, F124, and F125 (Fig. 21). Most of the pits were created in the same way: after digging the pit depression, a layer of plaster, followed by hot ash and charcoal (sometimes in the form of a smoldering plank) was laid down, baking the soil beneath. This seems to have sealed the pit, making it somewhat waterproof. Above this was placed a layer of thick white or yellow plaster, then soil, then another layer of plaster and ash, and so on. Some of the deepest pits had at least seven to ten plaster layers.

The function of these pits remains enigmatic, as they held relatively small quantities of pottery and bone, and few other materials. The flotation samples analyzed so

far are filled with charcoal, but do not seem to contain substantial amounts of other plant material. These factors argue against a function as trash pits, unless the trash was in liquid form; there is little evidence, however, that they served as latrines. Therefore, the current interpretation is that they were work areas, perhaps for soaking something in liquid (leather? wool?), that needed to be renewed every so often by resealing them with plaster, clay and ash. The length of time each was used is difficult to determine, as the resealing might have taken place weekly, seasonally, or annually.

The Middle Iron Age builders of the next level above (see Ross 2010) appear to have taken these pits into account in constructing their structures; the stone foundations of those structures were built into the solid fill between pits, rather than through the pits themselves. It is possible that some of the pits were still in use when that complex was planned and built.

As has been demonstrated in previous seasons and now in 2012, the USS 4 trench area served as a work zone in the Late, Middle, and now Early Iron Age periods. Featured in these zones were significant numbers of plastered depressions or pits of uncertain function, with built structures only during some phases. Further analysis of the ceramics recovered in 2012 should allow for a more precise determination of date for these features. A wide array of modified sherds, as previously reported (Ross 2010), provides additional evidence for the use of this zone, which seems to be best characterized as a long-lived textile and/or leather production area.

The Iron Age Ceramics and Small Finds

Processing of the Early Iron Age pottery from the 2012 season is in a very preliminary stage, so the comments here must remain tentative. The ceramic corpus from the Iron Age loci so far analyzed is quite mixed, with significant numbers of Hittite and Hittite-related open forms (bowls and plates) of both drab and fine wares, as well as handmade jar and cooking pot forms that could be Late Bronze Age or Early Iron in date. Decoration included red, white, and gray slips; some large jar sherds showed vertical burnishing, another mark of Hittite date. Substantial earth moving activities in these layers, both in the process of pit creation and the use of earthen fill to create level surfaces at the mound's edge, may explain the appearance of so much Late Bronze Age (and some Middle Bronze and Chalcolithic) pottery. Few Early Iron Age diagnostic sherds have been recognized; some red-painted vessels appeared in the earliest loci reached, at the very end of the season.

A large variety of mixed pottery—Early, Middle, and Late Bronze Age wares as well as Iron Age sherds—came from the pits and fill layers of the upper strata excavated in 2012. Among the diagnostic Hittite types were sherds of gold glimmer ware, drab wares, and a bottle rim from the pit fill. The most significant Middle Iron Age diagnostic sherd was found at the base of one of the pits, F120 (L180): a large portion of the shoulder of a painted jug, with a frieze of cross-hatched and filled lozanges above a caprid standing at a stylized tree (Fig. 22). This sherd fits comfortably into the "Stag Ware" tradition of Alişar IV, though in this case, as elsewhere (Büyükkaya: Genz 2004: Taf. 69,1 and 74,16), the stag is replaced by an antelope or wild goat.

While the Early Iron Age pits contained few items beyond small amounts of animal bone and sherds, the fill layers of the Early Iron Age contained a number of small finds, though none particularly indicative of area function. Among the small finds from just above the Early Iron Age pits were a bronze pin or needle, a bronze ring, and a small, fine white stone block (unfortunately broken), polished on all sides, with drill holes in three different directions (through its length, width, and thickness) (Fig 23). These holes may have been for "stringing" the block, but even so provide no clear indications of its use.

Small finds of the Middle Iron Age layers include a miniature jug, a small white stone (onyx?) pendant, and a small, smoothed lump of obsidian. Of particular interest was an object from a fill locus of the early part of the Middle Iron Age: a sherd with an edge recut to create what looks like a raised design to be used as a seal (Fig. 24). A slight discoloration on the raised design (which appeared to be geometric, but could be hieroglyphs of some sort) suggests that it could have been dipped in ink to stamp fabric or leather. The design does not seem to be high enough to have stamped pottery.

THE BYZANTINE OCCUPATION

The Byzantine levels at Çadır Höyük span the period from roughly the fifth century through to the abandonment of the site in the early Middle Byzantine period, probably around 1070 CE. Byzantine habitation occurred on the top of the mound itself, as well as the terrace to the north of the mound (Fig. 2). While the mound's summit was probably utilized throughout the Middle Byzantine period, the terrace had a longer history, with occupation dating back to approximately the fifth century. An increasing number of Byzantine archaeologists and historians (Whittow 2009; Brubaker and Haldon 2011) are pointing to such excavations as one of the most important ways of understanding a period and region poorly documented in the written sources.

Current Excavations on the Mound Summit

Since our last publication concerning the Byzantine excavations at Çadır Höyük (Cassis 2009), work has been conducted in four trenches on the mound summit. Two are located in the internal area of the mound (SMT 13, SMT 8), and two are located on the southern edge of the mound (USS 3 and SMT 18). All trenches have confirmed the observations made in our 2009 report (Cassis 2009) that there were two clear phases of occupation during the Middle Byzantine period, with a third possible occupational phase near the end of the life of the settlement (after which there may have been an ephemeral post-Byzantine level). The Middle Byzantine occupation does not seem to have had an early Byzantine precursor on the mound, since the foundations of the Byzantine occupation here rest on a large stratigraphic level of fill which, at times, disturbs the Hellenistic and Iron Age remains beneath. The dates for the foundations for this occupation remain somewhat uncertain, due to a lack of fine ware and numismatic evidence.

Our 2009 report details the discovery of the large storage building and stable in the southeastern quadrant of the mound (Fig. 25). This find led to our belief that the fortified enclosure on the top of the mound was not a major military or administrative center, but rather served some sort of security/storage function for the population living on the terrace and in the surrounding area. The major structures are a large storage building and stable; the other excavations on the summit over the last few years have uncovered no substantial buildings or finds, providing further confirmation that this was not a major fortress.

There is a substantial fortification wall around the mound, which is most visible in SMT 15, SMT 19, and SMT 20, as well as in standing remains in unexcavated parts of the mound. To date, we have excavated one small guard tower in SMT 20 (Cassis 2009). In coming years, further exploration of this wall will hopefully help to explain its construction and function. However, based on our current excavations, it appears to have been built with the original construction on the mound. At some point a major seismic event knocked part of it down, and the focus of the wall shifted to the top of the mound, where a new fortification wall was built (Cassis 2009).

Our excavations in 2012, however, added a layer of complexity to the discussion of the function of the buildings on the mound. In 2012, we opened USS 3 on the upper southern slope in order to try to further isolate and explain the fortification walls, and, as noted above, reveal additional Iron Age occupational levels beneath. Neither of these goals was reached, because very quickly excavations came down onto a room of unknown function built into the side of the mound (Fig. 26). At present the positioning of this room vis-à-vis the extant Byzantine outer defensive wall and southern gate would place it *outside* Byzantine defenses. Confirming its position outside the main defensive wall must await further clearance in this area. This room was, however, almost certainly built during the first period of the summit's Middle Byzantine occupation since it is both well-constructed and cuts into the Iron Age material beneath it.

The room measures ca. 6.60 x 3 m, and is bounded by three joined walls (F1, F2, F8), the foundations of which are contemporary with a hard mortar floor (F10). The walls were initially plastered, and there is quite a bit of remaining plaster on the bottom part of the walls. A secondary wall (F11) was added on top of the floor, and the function of this remains a mystery. One small posthole was found to the east of this feature, just south of where it ends (F12). F8 stops at the edge of the mound, and the original end has probably been lost through erosion or earthquake damage. There is some evidence for a wall repair in F2, which is much thinner towards the east end of the trench. Further, the wall looks as though the plaster was repaired at a later date, so it is entirely possible that the room suffered some destruction in an earthquake and was then repaired. The thicker part of F2 may also correspond to this, if the population were attempting to shore up the wall. What is clear is that the building was important enough for continued use, even after destruction.

The fill above F10 was quite substantial, and has provided us with yet another mystery. This fill layer came out as two loci (L9 and L11) beneath another, later surface (F4; see below). L9 was a thick level of fill, while L11 was a small locus directly above the floor. Within L9 there was substantial evidence of burnt material, and scorch marks

on F10 suggest that there may have been an incident within the room. Among all of the burnt material, however, there were also a large number of metal artifacts. These were scattered throughout the room, and there was one particularly large deposit running alongside F2 towards the east end of the trench which looked like it was originally in some sort of now decayed organic material (a basket perhaps?; F9). Within this deposit were a piece of a sword, a cross, and a small metal vessel (Fig. 27). Right beside it was a piece of a large processional cross (Fig. 28). Throughout the room were found a number of other tools, crosses, and vessels (Fig. 29). Most, but not all, were broken. It is unlikely that this room was used solely as a garbage dump, but it is unclear if this scatter of objects represents an event or series of events in this room.

As noted above, the overall sequence for this room was completed by the addition of a secondary floor that covered the entire deposit. This later surface, F4, has the same dimensions as F10, but was a hard packed surface with a lot of gravel. Only a couple of metal artifacts were found here, including a horse tack and an iron spike, suggesting that the area had become a more utilitarian space at the end of its life. On the north side of F2 are the remains of the large plaster courtyard that runs through SMT 18 and SMT 13 (F3 in USS 3) and was left intact.

Current Byzantine Excavations on the North Terrace: NTN 7, NT 2, and NT 7 (Formerly 950.970 and 930.970)

Since the 2009 report, the excavations on the terrace have helped clarify the dates (and phasing) for the lower complex. Although we have not opened new trenches, we have continued with the exposure of three trenches: NT 7, NT 2, and NTN 7 (see Fig. 2). Our earlier reports tentatively suggested that at least some of this complex had an earlier date, probably around the fifth century, with later Middle Byzantine additions. Excavations in 2012 helped to confirm that the probable sequence of the terrace runs from the Late Antique, through the Early Byzantine, to the abandonment of the site in the Middle Byzantine period. NTN 7 was particularly significant for understanding this phasing, while further excavations in NT 7 and NT 2 showed the development of the site in the Middle Byzantine period. The excavations in NT 7 and NTN 7 in 2012 were predominantly aimed at trying to understand the phases of floors and surfaces. We were able to determine four phases of occupation: the original construction seems to date to the Late Antique period, with reuse visible in the early Byzantine period, followed by a major rebuild in the Middle Byzantine period, and a reorganization prior to the abandonment of the site in approximately 1070 CE.

The earliest phase of occupation that has been exposed thus far probably dates from the Late Antique or early Byzantine period, and seems to have been focused mainly on the north end of the terrace. It is primarily visible in NTN 7 and NT 2 (Fig. 30). In earlier seasons, excavation in NT 2 had revealed at least one room with clear stratigraphical levels dating back to the Early Byzantine period (Cassis 2009), and our hope was that our 2012 excavations would be able to isolate the early stratigraphical level that we identified in this trench. The small room which contained these early levels in NT 2 continues to the north of it into NTN 7, and is bounded by F1, 2, and 9; in NTN 7 the

room measures ca. 2.85 m x 2.5 m. Within this space we isolated a stratigraphical level (L15) sitting on a surface (L16) which contained a small amount of early Byzantine red-slip ware as well as a small coin, probably dating to the reign of Anastasius I (491-518 CE). These layers were below the Middle Byzantine levels (discussed below). The wall foundations have not yet been reached and the remainder of the trench has not yet been excavated to this level; future excavations will clarify the foundations of this building.

Trench NT 7 also contained evidence for the first two phases of occupation in the form of several surfaces running underneath the extant Middle Byzantine architecture (discussed below). A series of three surfaces, one on top of the other, ran underneath the walls identified in previous years of excavation, including (F1, 2, 4, 5, 9, and 11 on Fig. 30). The exact dimensions of these surfaces are difficult to assess because of the later architecture, but may have extended beyond the edges of the 10 x 10 m trench. These appear to have been outdoor surfaces, laid one on top of the other, possibly for a courtyard running alongside the early structure visible in NT 2 and NTN 7. This became clearer with the removal of the floor contemporary with the features above (F21 in the north part of the trench, and F22 in the small room to the south, bounded by F2, F11, and F4). In the north part of the trench, the removal of F21 immediately came down on a lower surface, F27, which contained a large ashy pit (F28 and L30/32/33) on its east side running along F1. The removal of F27 revealed surface F30, which contained a large feature along its east side which may have been an oven or kiln (F31and L36/38), just next to it was a pit for the base of a pot (F32), and a series of small postholes across the F30 floor (F36-47). The removal of F30 (and L60 immediately above) produced yet another surface, F59, which is where excavations ended for the 2012 season. In the small room bounded by F4, F9, and F11, a similar pattern was visible. F22 (likely contemporary with F27), was underlain by another surface (F33) which contained several pits (F34, 35, 49) which served as pot bases. It seems likely that these phases of surfaces represent the earliest occupation of the site, followed by the subsequent reuse of the settlement throughout the end of the early Byzantine period (the so-called "Dark Ages"). Further analysis of the ceramics assemblage in the coming year should clarify this.

The third phase of occupation was clearly visible in both trenches, and represents a more substantial rebuilding of the complex during the Middle Byzantine period. The original structure of the house was still in use, as is visible in NTN 7, while the southern part of the complex in NT 7 (and the previously excavated NT 8 [Cassis 2009]) was reconfigured to include more living space. In NTN 7, this reuse is visible both within the confines of the small room defined by F1 and F2 in the form of a stone surface made of medium sized paving stones (F7 and F8; exposed in 2008), as well as outside the walls of the structure. Outside and east of these walls was a well-constructed plaster surface (15a; excavated in 2008) laid over a cobblestone surface (probably foundational [15b]). Bounded by a small wall to the west (F21/F17), this surface had largely disappeared due to proximity to the plow zone. This floor sat on a layer of mudbrick. Underlying F15 was a lower cobblestone surface (F30). To the east was a similar surface (F32) upon which sat a stone feature (F25/L6) that may have been for holding a large storage vessel (excavated in 2012). Assignment of floors F30/32 to Middle or late Early Byzantine levels must await more intensive analysis of ceramics and other finds from NTN 7. Nevertheless,

there was continuous occupation in this area from the early Byzantine period to the Middle Byzantine period.

The reconfiguration of space in NT 7 also became visible in the 2012 excavations. This area is best represented by the addition of a kitchen area in NT 8 (Cassis 2009), as well as a number of later walls in NT 7 (see Fig. 30), including F1, 2, 4, 5, 9, and 11. Removal of L16 came down on F21, a packed mud surface described above, which is contemporary with walls F1, 5, and 9. This surface contained a number of firepits and postholes (F16-20; in area of L16 on Fig. 30). During this period, new walls were constructed throughout the trench created small rooms to the west of the kitchen area in N T8, including walls F4, 5, 9, and 11. To date, no earlier wall stubs were found in the area, suggesting, as noted above, that this area did function as a courtyard prior to this occupation.

The final use of the complex seems to have occurred near the time of the site's abandonment, and is largely characterized by further reconfiguration of space. In NTN 7 a few features which may date to this last period, including the stone feature F25 (see above) and the F1-2 walls. In NT 7, this later phase was visible in small areas, including a small patch of later mud floor running along the northwestern baulk with a small later wall (F3) that was largely decayed. Further, between walls F4 and F5, two later walls – F6 (also L68) and F7 (also L64-66) – were added to create small storage bins. Excavation of these walls indicated that they had been sitting on later surfaces that had disappeared.

The current excavations of the Byzantine levels at Çadır Höyük continue to provide evidence for the life of a rural settlement between roughly the fifth and eleventh centuries CE. Recent excavations have allowed us to isolate occupational layers that illustrate a continuous habitation of the north terrace during these centuries. The use of the mound remains a mystery (particularly given the discoveries in 2012), but we have been able to confirm our initial idea that primary Byzantine occupation on the mound began only in the Middle Byzantine period.

ARCHAEOBOTANICAL REMAINS

Archaeobotanical research at Çadır Höyük focuses on: 1) defining the nature of agricultural production and plant use for each phase of occupation, and 2) examining the dynamic relationship between food production, and social, economic, and environmental factors. A broad and intensive sampling strategy has been adopted. Since contexts with rich archaeobotanical samples are rarely visually distinct in the field, sampling all primary and most secondary contexts from all time periods allows for the most representational archaeobotanical assemblage possible. During the 2012 season, 15 liter sediments samples were collected from every primary context and well defined secondary context excavated in the trenches discussed above. In instances where contexts yielded less than 15 liters, the entire context was collected for flotation. All 2009 and 2012 samples were processed using a modified Siraf flotation tank at the dig house. Light fractions were collected within a 500 micron mesh and were dried in the shade. Heavy fractions were

dried and fully sorted in the field. Any charred plant remains recovered from the heavy fractions were added to the associated light fraction. This report presents preliminary analyses of the 2012 season's samples. The samples were visually scanned in the field but not fully sorted or processed. The 2009 samples were floated, but have not been visually scanned or analyzed. They will be fully processed in 2013.

Given the proximity of the 2012 excavations to the modern surface of the mound, most of the samples from SES 1, the Late Chalcolithic trench, were full of modern roots. The one exception was the soil sample collected from the Late Chalcolithic infant pot burial L103, which contained wood charcoal, clay, and a few grains. Despite the abundance of modern roots, SES 1 yielded a number of very productive samples from the hearths in the courtyard south of the Burnt House. These samples included a mix of charred grains (wheat and barley), and legumes, usually lentils. The most unique sample came from hearth F55 (see above) which contained an abundance of lentils.

The preliminary visual scan of samples from the eastern slope second millennium trenches (ST 7 and ST 8) have not offered more than a standard list of grains and legumes (wheat, barley, lentil). The casemate wall in ST 8 (see above) yielded little to no charcoal, which is to be expected from a large mudbrick construction project. The Iron Age pits from Trench USS 4 on the upper southern slope were far more productive. Most of the samples from USS 4 were collected from plastered Middle Iron Age pits. These samples yielded the most charred wood, by far, of any samples from the site. This is probably due to way the pits were constructed since they were lined with charred wood before they were filled in antiquity. The samples from the multiple pits in USS 4 also contain seeds, however: about a third of the assemblage is composed of grains (wheat and barley) and legumes (lentil and bitter vetch). Modern roots were present in USS 4 samples even late into the season, probably due to the fact that the sediments in the pits were very soft and conducive for root formation and plant growth. Not all of the samples from USS 4 were floated in 2012, the remaining samples will be floated in the 2013 season.

The Byzantine samples from the north terrace contained many modern roots due to their proximity to the surface. Several quite large seeds were recovered and will be identified during the full analysis of the samples during the 2013 season. Several samples from USS 3, on the upper southern slope, offered evidence of wood charcoal but no plant remains. Some Byzantine samples await flotation in 2013, however, and these may yield additional data. Although the presence of modern roots in many of the samples is potentially detrimental to further analysis, many samples were rich in charred plant remains and have the potential to offer new insights into the agricultural practices of the fourth and third millennia inhabitants at Çadır Höyük.

ARCHAEOZOOLOGICAL REMAINS

Excavations and careful recovery of ecofacts at Çadır has produced a large and growing faunal collection from the Chalcolithic through Byzantine periods which provides a valuable resource for identifying changes in human-animal relationships through a lengthy time sequence on the central Anatolian plateau. Long term

zooarchaeological research at Çadır is focused on addressing a series of questions including: 1) identifying the nature of the animal economy in each occupational phase; 2) identifying animal management strategies used by ancient Çadırans; and 3) integrating the fauna within both the dynamic environmental context of the Anatolian plateau in the middle and late Holocene and the changing social, political and economic function of the settlement through time. Additionally, a series of more specific research projects are underway at Çadır addressing the the origins of domestic equids, especially horses, on the central plateau, changes in carcass processing intensity through time, and finally evidence for the production of wool and manufacturing of woolen textiles. Each of these topics will be addressed in future publications.

Initial examinations of the fauna from Çadır have focused on defining the nature of the animal economy in each subsequent phase of occupation of the site. Due to the long stratigraphic sequence represented at the site, this has proven a challenge, and some periods are better documented than others at this point in the analysis with sample sizes ranging from 39 specimens for the MBA phases to 2828 for the Iron Age.

The current list of taxa identified at Çadır are documented in Table 3 while the frequencies of the major mammalian taxa are presented in Table 4. In total, more than 5400 specimens have been recorded (including those not yet assigned to occupational phases) including more than twenty taxa identified to the genus level.

In each assemblage, domestic mammals including sheep and goats, cattle, and pigs are dominant, although the frequencies of livestock vary between levels. Comparison of the frequencies of the major mammalian taxa indicates significant differences in the composition of the faunal assemblages through time (Table 5). Chi square analysis suggests that the LC and Transitional/EBA assemblages differ from those of the MBA, LBA and Iron Age, while the composition of the Byzantine assemblage is significantly different from every other assemblage.

The LC and LC/EBA faunas are dominated by caprines and secondarily pigs. Although sample sizes are small, a combination of age and biometric data indicate that male sheep were regularly slaughtered as adults, suggestive of a herd management strategy in which wool was an important goal of production (Arbuckle 2009). The presence of small-sized, domestic pigs in the Chalcolithic is significant since they represent some of the earliest evidence for pig husbandry in central Anatolia (Arbuckle, forthcoming). In addition, pigs have been identified as an important component of the fourth millennium economy at the nearby site of Çamlıbel Tarlası (Bartosiewicz and Gillis 2011; Schoop 2009).

In contrast to the Chalcolithic assemblages the MBA, LBA and Iron Age faunas are dominated by a combination of caprines and cattle. The high frequencies of cattle, especially in the MBA and LBA phases, where cattle represent the single greatest source of meat and offal, may be linked to the relatively high status of the site and is a pattern also seen at Boğazköy (von den Driesch and Boessneck 1981). Despite continuities in the frequencies of the domestic livestock species from the Bronze to the Iron Age, there is good evidence for major changes in the organization of the animal economy in the Iron Age. Although the Iron Age deposits represent fill within ‘industrial’ pit features, and

therefore reflect a unique set of depositional environments, they indicate major shifts in livestock management strategies related to changes in the function and perhaps population of Çadır in post-Hittite central Anatolia (see Arbuckle 2009). Finally, in the Byzantine period, cattle are by far the dominant animal and show an emphasis on large oxen—consistent with the interpretation of the site as a small agricultural community in this period. Pigs are a distant second in terms of NISP frequency and meat weight estimates, with sheep and goats dropping to the third and fourth most abundant taxa.

Although each assemblage is dominated by domesticates, the diversity of taxa and especially the abundance of wild taxa varies. The LC deposits exhibit the highest diversity of species (Shannon Weaver Diversity Index, Table 3) and the greatest number of wild taxa including the three species of deer native to central Turkey, and relatively high proportions of hare, fox, and tortoise. In total, twenty percent of the fauna from the Middle and Late Chalcolithic levels represent wild animals, a number which generally decreases through time until the Byzantine where wild animals are largely absent.

The next most diverse assemblages are the Iron Age, and LBA, while the remaining assemblages, especially Byzantine, exhibit low diversity and, as noted, few wild taxa. The large Iron Age sample (NISP=2828) represents the second most diverse assemblage, although its composition is quite different from that of the Late Chalcolithic. The Iron Age assemblage including a unique concentration of marten, weasel, rodents, dogs, fox, hare, equids, and a large number of tortoise remains. This unique spectrum is likely related to the nature of the Iron Age deposits. The equid and dog remains likely reflect carcass deposition in this 'dirty' industrial environment while the mustelids and rodents likely resided in burrows within the disturbed matrix of these large pit features.

Finally, equids are present in all levels at Çadır and are notably abundant in the LC/EBA, LBA and Iron Age deposits. The abundance of equids combined with the long stratigraphic sequence provides a rare opportunity to document the appearance of domestic horses and also donkeys on the Anatolian plateau. The earliest horse remains have been recovered from a sealed context radiocarbon dated to the mid fifth millennium cal BCE (AA84957: 5829+/-56 uncal bp; locus 62; trench LSS 5), and increase in frequency into the LC/EBA, LBA and Iron Age levels. Small equids, likely domestic donkeys, are present by at least the Iron Age and likely earlier. A major focus on ongoing faunal research is to identify whether the Chalcolithic equids so far identified at Çadır represent remnants of wild horse populations on the central plateau or if they represent some of the earliest domesticates in southwestern Asia.

Ongoing work on the Çadır faunal assemblage is focusing on building a robust and valuable database which will continue to play an active and vital role in understanding the major cultural and environmental changes that occurred on the central plateau in the middle and late Holocene.

CHIPPED STONE RESEARCH

As a multi-occupational period site, Çadır Höyük offers the opportunity to study lithics on the north central Anatolian plateau across an extended temporal period.

Chronological periods such as the Chalcolithic have thus far received only minimal research attention and Çadır provides an opportunity for conducting multiple lithic research initiatives.

In addition to the cataloguing and analysis of recovered artifacts, current lithic research at Çadır Höyük includes a study of lithic technologies and their trajectories during the LC through EB I periods, element characterization and petrological analysis of raw materials found at the site, and experimentation on local stones to determine the relationship of stone preference to the workability of local cryptocrystalline silicates (CCS) found in the area around the mound. Additionally, use-wear analysis of tools from the LC through EB I periods is scheduled to begin in the near future.

At present, 1,117 chipped lithic artifacts from the Çadır lithic assemblage have been catalogued and analyzed, representing finds from all periods of occupation, though recent research focus has targeted those recovered from the 2006-2012 seasons. Thus, work continues on the lithic assemblage and only a preliminary overview may be presented here. A total of 31 chipped lithics was catalogued in 2009 (the smaller number resulting from a shorter field season) and another 277 in 2012.

Most formal tool forms are present in the Çadır lithic assemblage, with the most prevalent of these, a total of 19% (n=209), being tools made using blade technologies (Fig. 31a-d). Most of the blades and blade segments found at Çadır are made of non-local, quality CCS and were heavily used and retouched before being expended and then discarded. This could be expected when tools are made of desirable raw materials that are not as readily available.

Other formal tools include various forms of borers, choppers, and scrapers. Both end and side scrapers were present in significant numbers, as are borers such as drills and perforators. During the 2009 and 2012 excavation seasons, the first evidence of two other categories of formal tools, denticulates and projectile points, was recovered. The four denticulates were recovered from LC to EB I contexts in trench SES 1. Interestingly, all four denticulates were found in association with hearths.

In 2009 a complete projectile point was recovered from an LC to EB1 Transitional Phase context (L61) in Trench SES 1. This small, isosceles triangle point, made of obsidian with a strong green tint, suggests that the raw material might have come from the obsidian sources at Bingöl A or Nemrut Dağ in Eastern Anatolia (T. Carter, personal communication). In 2012, a second, partial point (distal end) of the same type and material was found in association with a hearth in an LC to EB1 context in trench SES1 (Fig. 31e).

Informal or ad hoc tools, comprised mostly of utilized flakes, represent only 3 percent of the Çadır chipped lithic assemblage. Raw materials utilized in the production of these types of tools do not suggest a material preference and appear to be produced from whatever was readily available.

Chipped stone tools continued to be used at the site long after metals became common. Particularly evident is the continued use of blade technologies as late as the Early Middle Iron Age. Several other formal and ad hoc tool forms were found in Early and Middle Iron contexts in trenches USS 4. The majority of these continued to be

manufactured from non-local CCS, showing a preference for these high quality materials across an extended temporal span.

Production of Lithic Tools

The extent of lithic production at the site is still not fully understood. The lack of lithic workshops, large cores, and debitage quantities that would be associated with specialized or centralized production is, thus far, absent from the site. More prevalent, however, is evidence of household modification of preform blades into desired tool forms and household manufacture of tools from readily available materials.

With few blade cores and only limited evidence of extensive blade production at Çadır, our current supposition is that blades arrived at the settlement through trade networks or from an off-site workshop. Fewer local materials were used to make blades (see below). The only large blade core made of local material was a discarded piece of jasper cobble that had a ridge removed to set up for the removal of a crested blade (Fig. 32). The attempt to remove the blade failed and both pieces were discarded.

Cores most prevalent on the site are small, randomly struck, flake or mixed flake/ blade cores used to produce smaller blades, bladelets and flakes. These are mostly found within domestic contexts often in association with small amounts of debitage. Currently, the evidence points to domestic production for almost all chipped lithic production on the site. One possible exception is from the Burnt House Courtyard and its associated areas located in LSS 4 and SES 1, where there is evidence that there may have been a cottage industry modifying blades for the repair of composite tools (see below) (Steadman et al. 2008: 57).

Analysis of Lithics from Chalcolithic – EB I Contexts

Analysis of the LC through EB I lithic assemblage at the site was undertaken as part of a larger study of these periods at Çadır Höyük and the northern area of the central Anatolian plateau. Primary goals of the lithic study of these periods at Çadır include determining predominant lithic technologies and their trajectories, tool usage, regional and interregional trade of lithic materials, industrial production, and the effect the introduction of metallurgy had on the lithic toolkit at Çadır.

At present, not enough lithic data are available or have been analyzed for the EB I to make a valid comparison between the LC and EB I periods. Although research is not yet complete, several general observations regarding lithics can be made about the LC Çadır lithics. Of the 581 chipped lithic tools from the LC that were analyzed as part of this study, 71% (n=413) were manufactured from raw materials presently considered non-local, indicating significant trade of lithic materials and a preference for these materials. The percentage of tools made of non-local raw materials indicates that the trade of lithics was an integral part of a Çadır economy healthy enough to import quality lithic products. This information supports findings that LC Çadır included well-provisioned households in an economically vibrant society (Steadman et al. 2008: 59-60).

Blade technology is the predominant technology found in the LC period, exhibited in 112 formal tools from that period. Of these, only three were complete blades, with the remainder being truncated segments. Crested and ridged blades are all present in the LC chipped lithic assemblage, with ridged blade types being predominant.

One section of the LC exposure, the Burnt House Courtyard, was particularly productive in yielding chipped lithic artifacts. Of the 581chipped lithics analyzed from the period, 49% (n=285), were found within this area. Of these, 18% (n=50) were blades, bladelets, and truncated blade segments of both the ridged and crested type. Use-wear gloss, or sheen, running parallel to the working edge is exhibited on seven bi-truncated blade segments that also show heavy edge retouch and damage. Most interesting was the number of short proximal and distal end blade segments and the number of expended blade segments found within the courtyard. A total of 14 proximal and 16 distal blade ends were found in the Burnt House Courtyard, or 11% of the chipped lithic artifacts recovered from this area.

Given the comparative frequency of chipped lithics in the courtyard, the large presence of proximal and distal ends, unused bi-truncated blade segments, and expended blade segments exhibiting use wear and hafting residue, indications are that the courtyard may have functioned as a lithic workshop: a cottage industry related to tool manufacture and repair. The use-wear, retouch, and hafting patterns indicate that composite tools, such as sickles, may well have been the focus of work.

Raw Material Sourcing and Characterization

Geological sourcing and element characterization is a routine part of analysis of the raw materials present in the lithic assemblage. During the 2006 and 2008 seasons, geological investigation of the immediate environment surrounding Çadır Höyük was carried out to determine the extent of raw lithic materials readily available to the occupants of the site. Although the area southeast of the mound and south of the Eğri Su was devoid of CCS materials, the area north of the river yielded an exposed layer of brown chert cobble on the north slope of the drainage. The layer runs along the north slope of the Eğri Su drainage westward to a point directly behind the mound.

In addition to the brown chert, small cobbles of a light tan chert were located on the north side of the river, within the drainage bottom. The frequency of the tan chert was extremely sporadic and the size of the specimens small, not exceeding 51 mm in length. Areas west of the mound and north of the Eğri Su, within a radius of 1.5 km of the mound, also feature likely sources for raw resource acquisition. Although a secondary stream drainage to the west of the mound was devoid of CCS materials, the layer of brown chert was re-delineated on the north slopes of the Eğri Su drainage.

Further west, other varieties of chert and jasper were encountered. In addition to the brown chert, red and white marbled and dark brown cherts were also observed. Additionally, a high quality orange-yellow jasper is present in the region. Roughly 1.3 km west of the mound, a larger deposit of chert and jasper cobble exists on the drainage slope, which included all of the observed varieties of chert and jasper in a layer ca. 10 m in

depth and 50 m in radius. The size of all specimens is relatively small, with the largest specimen measuring 89 mm in length. Further research may yield additional information on regional sources.

Depositional processes of these materials have yet to be determined. The frequency, size, and location of the specimens indicate they are likely deposits from alluvial flows transporting them from upstream bedrock sources as most of the material is water-smoothed cobble lacking significant cortex or their original tabular or nodular forms.

Initial observations gained during the 2006 and 2008 seasons indicate that local materials were used in the manufacture of chipped lithic tool forms at Çadır to a lesser degree than those presently considered non-local. Local materials were used in 30 of the 78 (38%) formal tools other than blades and blade segments. At the same time only 51 of the 209 (24%) blades, bladelets, and blade segments found at the site are made of materials currently thought to be of local origin. These findings indicate a stronger preference for non-local lithic materials in the manufacture of formal tools, especially in blade technologies.

Obsidian comprises 23% of the recorded lithic assemblage at Çadır. Element characterization and sourcing of obsidian of the site's 252 obsidian artifacts is being addressed through an ongoing research project in collaboration with Tristan Carter of McMaster University. Locating the source(s) of the obsidian used in Çadır's artifacts will assist in defining regional interregional lithic trade patterns and its impact on Çadır's economy.

CONCLUSION

The 2009 and 2012 excavations at Çadır Höyük provided further confirmation that this site has a very rich history of occupation spanning at least 6000 years (from 5200 BCE, our earliest C^{14} date, through final abandonment in ca. 1070 CE). These seasons have further delineated how the settlement was used in different periods. Rather than creating the perfect "layer cake" of stratigraphic occupation, Çadır residents abandoned some areas of the settlement for centuries and even millennia, while other sectors, such as the eastern slope, saw consistent occupation from at least the late third millennium to the very Late Iron Age and perhaps beyond. Future seasons will enhance our ability to build a millennia-long occupation sequence at this prolific site on the north central Anatolian plateau.

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APPENDIX: CERAMIC DESCRIPTIONS

"Ware" refers to the clay color and constitution after firing. This is particularly relevant with regard to "micaceous ware" references, the apparent clay source used by the Çadırans that contained a generous sprinkling of mica in its make-up. In referring to grit temper the following sizes are used: fine (< 0 mm), small (1 mm), medium (2-3 mm), large (4-5 mm), and very large (5mm <).

Parenthetical information: ÇH04 refers to the year excavated (i.e. 2004); the four or five digit number refers to the Field Catalog Number (FCN) that is the unique, consecutive, number applied to each artifact or bag of artifacts recovered; the letters/number combination designates trench; the F/L number refers to the feature or locus within that trench from which the ceramic was excavated.

Transitional Period pottery (Figure 8)

Fig. 8a. Bowl (ÇH12; 10374; SES 1; F59): Grey/brown slipped and highly burnished exterior, dark grey highly burnished interior. Medium white grit and chaff temper, core is uniformly grey.

Fig. 8b. Jar (ÇH12; 11616; SES 1; L10): Orange to dark grey highly burnished exterior, with post-firing (ochre-based) paint on rim above carination; orange to grey untreated interior. Medium white grit temper, core is an orange exterior, grey interior.

Fig. 8c. Jar? Base of fruitstand? (ÇH04; 6593; SES 1; F10): Light orange untreated exterior with visible chaff marks, light orange interior with light slip and smoothing near rim. Small black and white grit temper, core is uniformly light orange.

Fig. 8d. Bowl (ÇH04; 6571; SES 1; F8): Black slipped and highly burnished exterior rim, light orange slipped and burnished exterior below carination, black slipped and highly burnished interior. Medium black and red grit temper, core is uniformly black.

Fig 8e. Bowl (ÇH04; 6571; SES 1; F8): Grey and black slipped and highly burnished exterior with diagonal burnish marks, incision below rim, red slipped and highly burnished interior with horizontal burnish marks, sharp thickening halfway down interior bowl. Medium white grit and chaff temper, grey core with red interior and black exterior.

Fig. 8f. Cooking pot (ÇH04; 6234; SES 1; L12): Grey to buff lightly slipped and burnished exterior, buff interior with light burnish at rim and wiped below rim. Medium white grit temper, core is grey, paste is coarse.

Fig. 8g. Jar (ÇH04; 6234; SES 1; L12): Black moderately slipped and burnished exterior, interior is originally buff with moderate burnish but is blackened by fire marks and feels greasy to the touch. Extensive small white grit temper, core is uniformly buff.

Fig. 8h. Bowl (ÇH04; 6230; SES 1; L13): Light orange at rim, grey body, slipped and highly burnished exterior, light orange interior burnished at rim and smoothed below. Small white grit and chaff temper, core is buff at exterior and orange at interior.

Fig. 8j. Jar (ÇH04; 6593; SES 1; L12): Dark grey slipped and burnished exterior, dark grey interior with smoothed rim. Medium white grit temper, core is orange with grey edges.

Fig. 8k. Holemouth jar (ÇH04; 6571; SES 1; F8): Light orange slipped and lightly burnished exterior, light orange interior with light burnish at rim and smoothing below. Medium white grit temper, core is uniformly orange.

Fig. 8m. Cooking pot (ÇH04; 6249; SES 1; L10): Light orange/red slipped and burnished exterior, red heavily slipped and burnished interior. Medium red and white grit temper, core is orange/red.

Fig. 8n. Juglet (ÇH12; 11635; SES 1; L102): Buff exterior with very light burnish, untreated interior. Extensive incised decoration featuring "bull's eye" circles and basket weave inside linear dual lines covers vessel's exterior. Medium white grit temper, core is uniformly buff.

Early Bronze pottery (Figure 12)

Fig. 12a. Cooking pot (ÇH08; 9059; SES 1; F43): Brown exterior and interior with pink slip and burnish at rim. Numerous small to large angular white and grey grit temper with some chaff, core is brown at exterior, grey at interior. Vessel was constructed with either coil or slab technique; rim was pinched.

Fig. 12b. Bowl (ÇH08; 8943; SES 1; F43): Grey slipped and burnished exterior, buff-pale orange interior, smoothed. Small white and black grit temper, uniformly grey core.

Fig. 12c. Bowl (ÇH08; 8921; SES 1; F43): Red-orange slipped and highly burnished exterior turning black-grey at rim, black interior with slip and high burnish. Post-firing paint applied on interior. Small white grit temper, core is uniformly orange. Fine ware.

Fig. 12d. Bowl (possible bowl of fruitstand) (ÇH08; 8921; SES 1; F43): Orange slipped and highly burnished exterior with horizontal burnishing marks, black slipped and highly burnished interior. Small to medium white and black grit temper, core is uniformly orange. Fine ware.

Fig. 12e. Jar (ÇH08; 9059; SES 1; F43): Black burnished exterior, brown-black smoothed interior. Small white grit temper and chaff temper. Micaceous ware. Core is uniformly black.

Fig. 12f. Bowl (ÇH08; 8939; SES 1; F41): Grey-black exterior with light burnish and horizontal burnishing marks, black-grey interior with light burnish. Medium white and grey grit and chaff temper, uniform grey core.

Fig. 12g. Holemouth jar (ÇH08; 8942; SES 1; F43): Black-pink (mottled) burnished exterior, black interior turning brown at rim and burnished only at rim. Numerous small and medium white grit and chaff temper, core is brown and black. No diameter available.

Fig. 12h. Jar (?) (ÇH08; 8942; SES 1; F43): Black burnished exterior with some pink mottling and outward bulge at shoulder. Light brown interior lightly burnished. Small and medium white grit temper, core is uniformly brown. No diameter available.

Fig. 12j. Jar (ÇH08; 8760; SES 1; F36): Brown slipped and highly burnished exterior, brown-grey slightly burnished interior. Small white and black grit and chaff temper, core is uniformly black.

Fig. 12k. Jar (ÇH08; 9059; SES 1; F43): Red-orange slipped and highly burnished exterior and interior (somewhat lighter on interior). Very small white grit temper, core is sandwich with grey at center and orange-brown at surfaces. Very hard fired fine ware.

Fig. 12m. Two-handled bowl (ÇH08; 8753; SES 1; F36): Orange-grey smoothed and lightly burnished exterior, especially at shoulder and rim, red smoothed (unburnished) interior. Some burning on exterior. Small concave base, handles of different size and shape. Small white and black grit and chaff temper, core is grey at outside and red at interior.

Fig. 12n. One-handled cup (ÇH08; 8754; SES 1; L38): Dark brown and black burnished exterior, grey to black interior (unburnished). Omphalos-style dimpled bottom. Medium white grit temper, uniformly grey core.

Fig. 12p. Cup (ÇH08; 8757; SES 1; F36): Light grey interior and exterior with light burnish, bottom of interior is green-grey and untreated. Small concave base. Small and large white grit and some chaff temper, core is uniformly dark brown-grey. Two halves of cup (upper and lower) joined at belly.

Fig. 12q. One-handled cup (ÇH08; 8349; SES 1; F36): Grey smoothed and burnished exterior and interior, grey fades to reddish on external rim, chaff marks visible on surface. Slightly concave base. Small white grit and chaff temper, core is uniformly grey.

Second Millennium pottery (primarily from Old Hittite/LB 1 contexts) (Figure 18)

Fig. 18a. Bowl (ÇH04; 5956; ST 7; L4): Smoothed exterior with some burnishing marks, knob on upper exterior below rim; interior orange-brown. White grit temper, wheelmade.

Fig. 18b. Bowl (ÇH04; 5956; ST 7; L4): Orange exterior, body and rim are highly burnished. White grit temper, wheelmade.

Fig. 18c. Bowl (ÇH04; 5960: ST 7; L5): Ware is dark brown and well levigated, interior is smoothed. Grit temper, wheelmade.

Fig. 18d. Bowl (ÇH04; 5960: ST 7; L5): Fabric is burned, exterior rim and upper area burnished. Grit temper, wheelmade.

Fig. 18e. Carinated bowl (ÇH04; 6518; ST 7; L14): Ware is brown with smoothed exterior. Grit temper, wheelmade.

Fig. 18f. Jug (ÇH04; 6502; ST 7; L13): Ware is reddish, exterior has brown slip and is burnished. Crushed stone and chaff temper, wheelmade.

Fig. 18g. Jug (ÇH04; 6263; ST 7; L11): Ware is reddish-orange, exterior has a greenish-yellow slip. Grit and lime temper, wheelmade.

Fig. 18h. Miniature bowl (ÇH04; 6502; ST 7; L13): Ware is brown, exterior has red slip and is burnished. Grit and chaff tempered. Possibly handmade.

Fig. 18j. Pithos (ÇH04; 5960; ST 7; L15): Ware is orange-brown and fairly coarse, exterior untreated but with wheel-marks. Grit and some pebble temper.

Fig. 18k. Large jar (ÇH05; 7618; ST 7; F35): Ware is micaceous and dark orange, exterior has red wash. Grit temper, wheelmade.

Fig. 18m. Pithos (ÇH04; ST 7; L12): Ware is dark orange-brown, exterior untreated but with wheel-marks. Grit, lime, and large pebble temper.

Fig. 18n. Jug (ÇH04; 6150; ST 7; L11): Ware is reddish-brown, exterior has red slip and is burnished. Small grit and lime temper, wheelmade.

Fig. 18p. Jar (ÇH04; 6289; ST 7; L1): Ware is buff-red, exterior has brownish-red painted geometric pattern on orange-buff slip, then burnished. Grit, lime, and pebble temper, wheelmade.

Fig. 18q. Jar with knob (ÇH04; 6513; ST 7; L12): Ware is orange, exterior has red-brown/plum slip or paint on buff slip, lower exterior has only buff slip, horizontal burnish over entire exterior, interior is untreated. Grit and lime temper, wheelmade.

Fig. 18r. Jar/bowl (ÇH04; 6289; ST 7; L11): Ware is buff red, exterior has brownish-red bands of slip/paint on orange-buff slip and is burnished. Grit, lime, and pebble temper, wheelmade.

Fig. 18s. (ÇH04; 6293; ST 7; L11): Ware is orange, exterior has red painted bands on pinkish-buff, slipped and burnished. Fine grit and lime temper, wheelmade.

Fig. 18t. Body sherd with pre-firing potmark (ÇH04; 6295; ST 7; L11).

Fig. 18u. Jar with four handles (ÇH04; 6251; ST 7; L11): Ware is orange-brown, exterior has alternating bands of reddish-purple and orange painted bands, lightly burnished, interior rim has orange paint. Grit and lime temper, wheelmade. [Note: additional pieces of this vessel found in 2012 excavations in ST 7.]

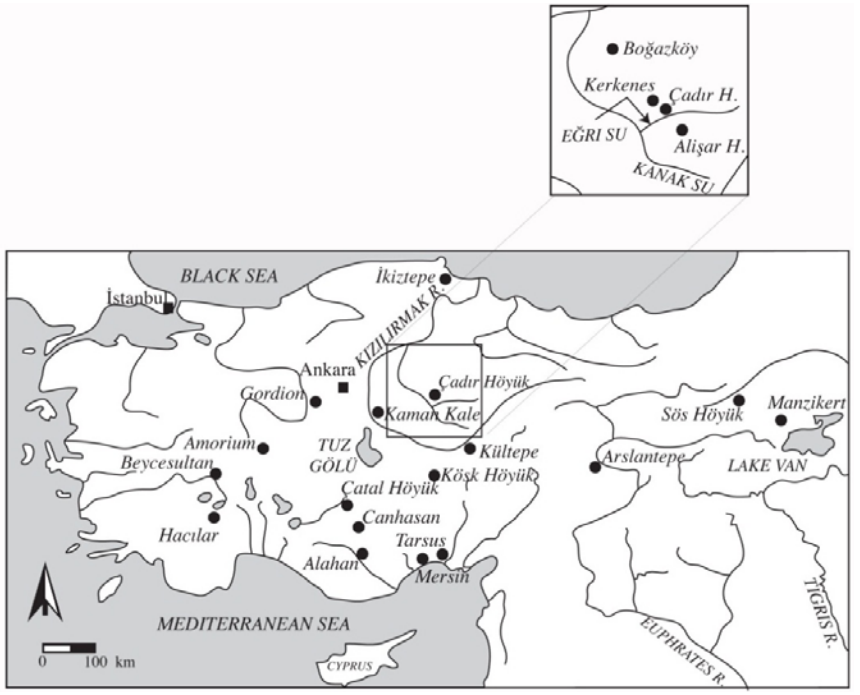

Fig. 1. Map of Site in context.

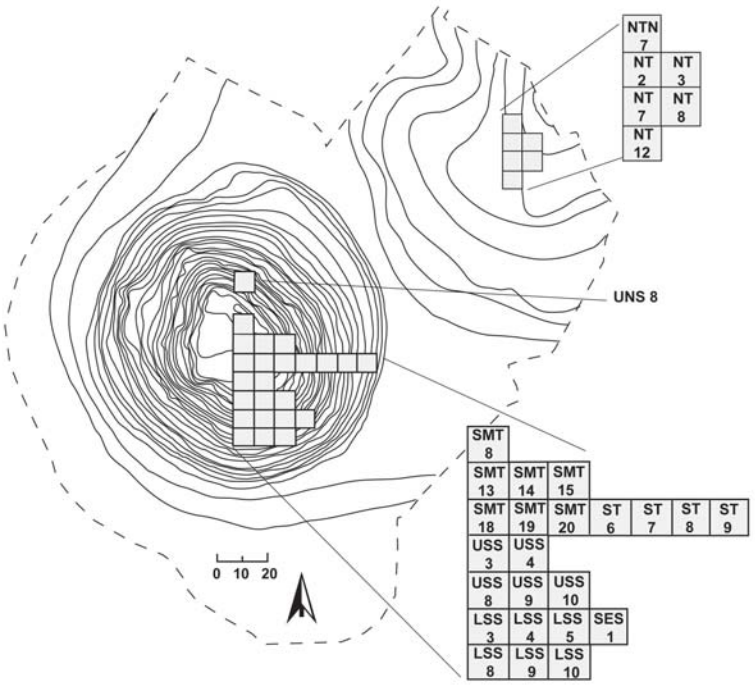

Fig. 2. Topographic map of mound and excavated areas (topo map courtesy of Timothy McKillen).

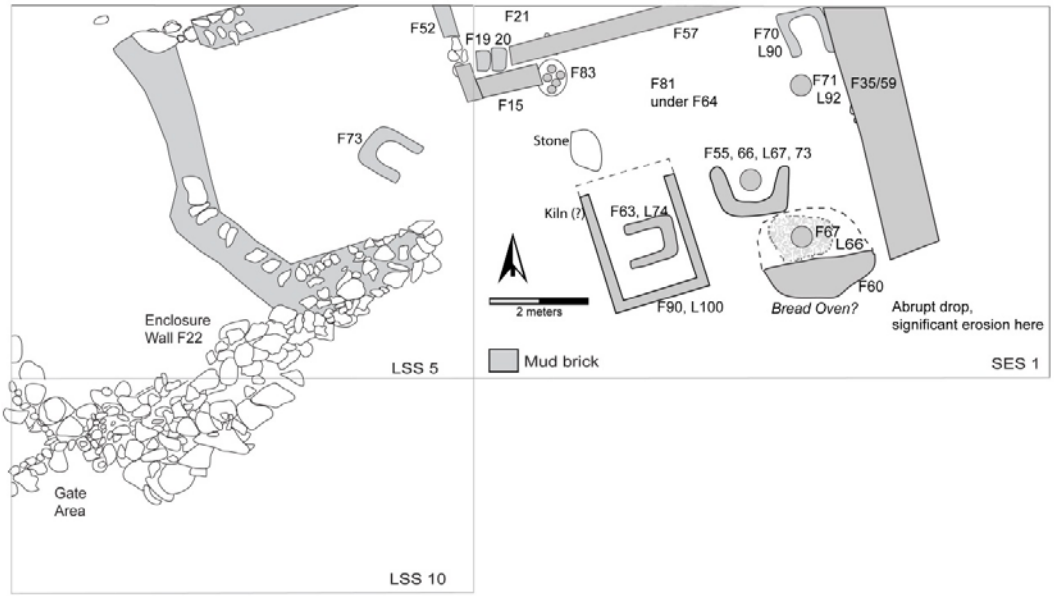

Fig. 3. Plan of the Late Chalcolithic Occupation in Trenches SES 1, LSS 5, and LSS 10.

Fig. 4. Photo of largest Late Chalcolithic/Transitional Period hearth (F60, 67, L66), tentatively identified as a bread oven.

Fig. 5. Photo of F83, a shallow pit full of baked clay ovoids, possibly originally intended for ceramic production in the courtyard (note foundation stone from F15 resting above F83).

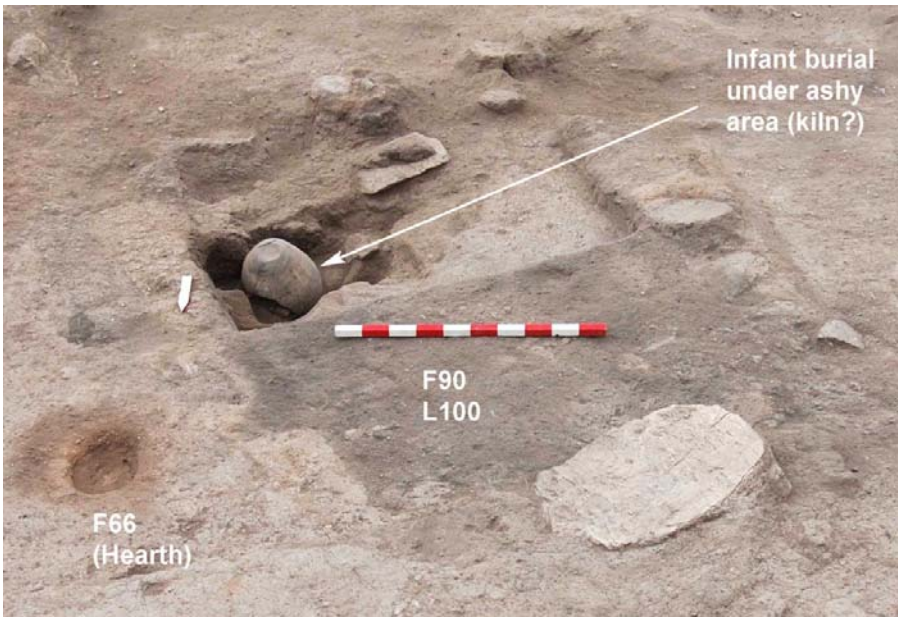

Fig. 6. Photo of F99, L103, the infant burial underlying ashy area F90, L100 which may have been a kiln.

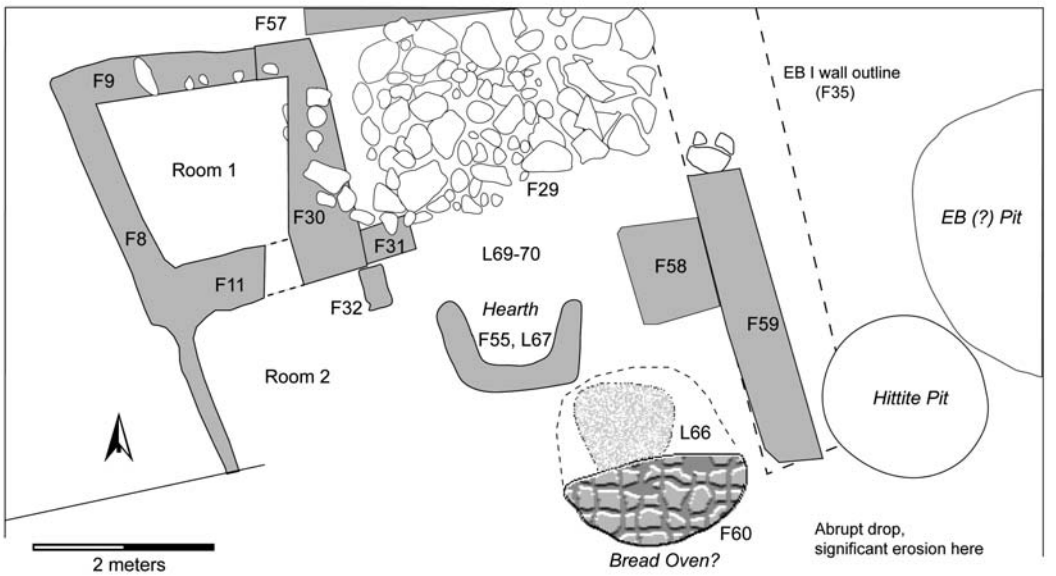

Fig. 7. Plan of Transitional Period Occupation in Trench SES 1.

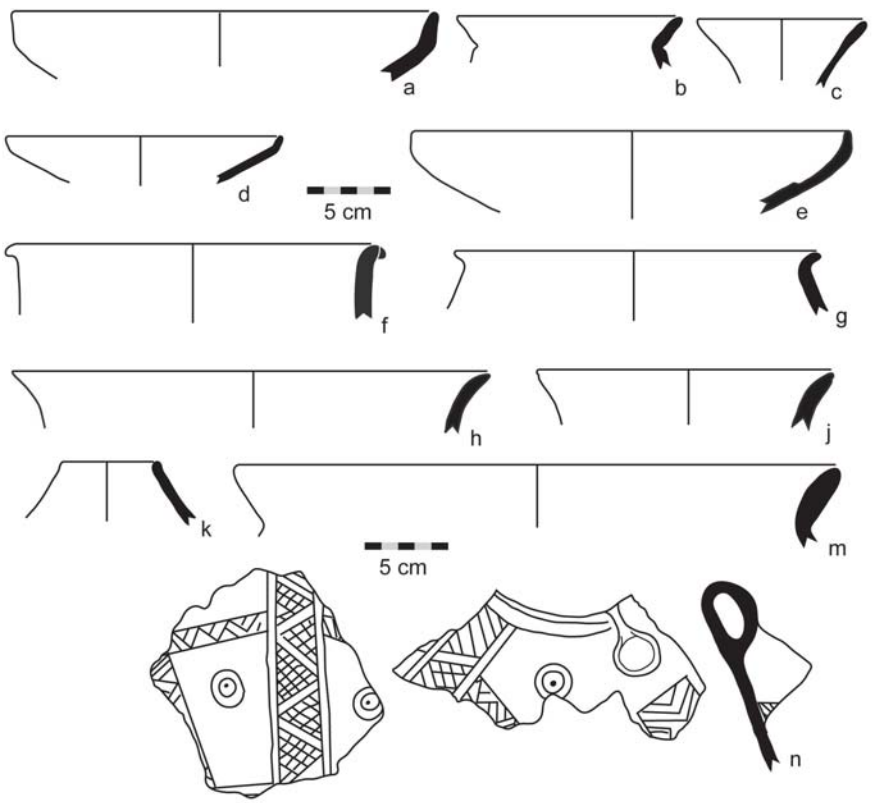

Fig. 8. Transitional Period pottery (see appendix for individual descriptions).

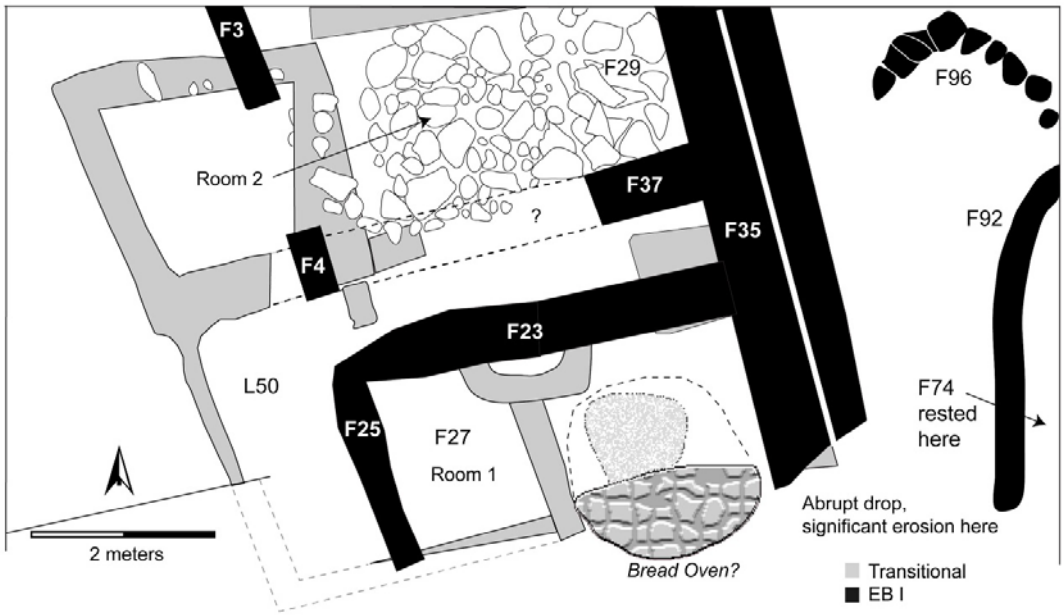

Fig. 9. Plan of Early Bronze I Period occupation in Trench SES 1.

Fig. 10. Photo of F43 floor with stone "furniture" and associated pottery.

Fig. 11. Ceramic "box" (FCN 9391) recovered from F29.

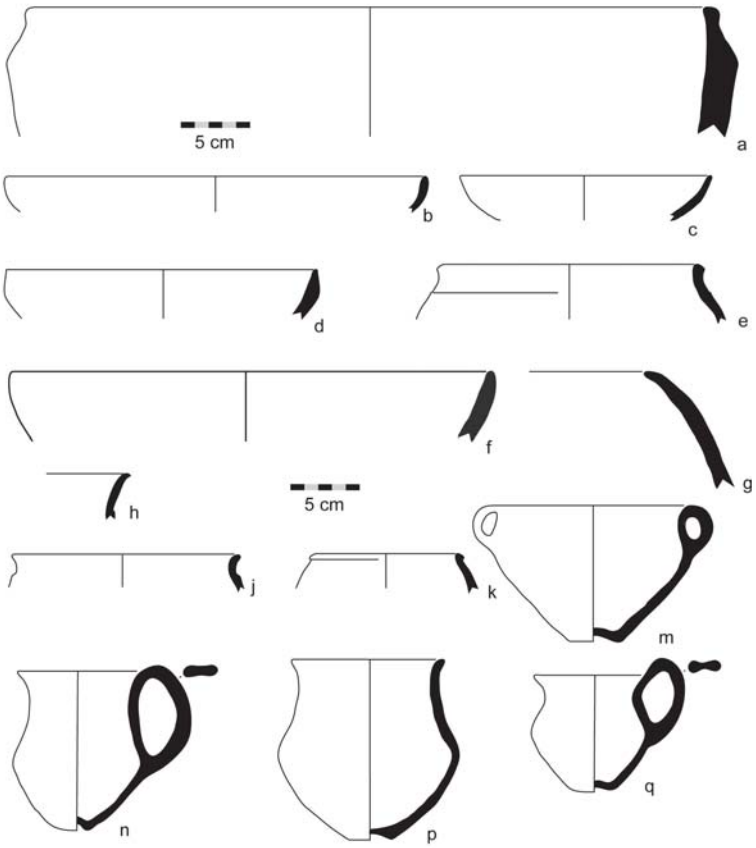

Fig. 12. Early Bronze I pottery (see appendix for individual descriptions).

Fig. 13. Photo of Early Bronze I architecture in Trench LSS 3.

Fig. 14. Photo of Early Bronze I architecture in Trench USS 9.

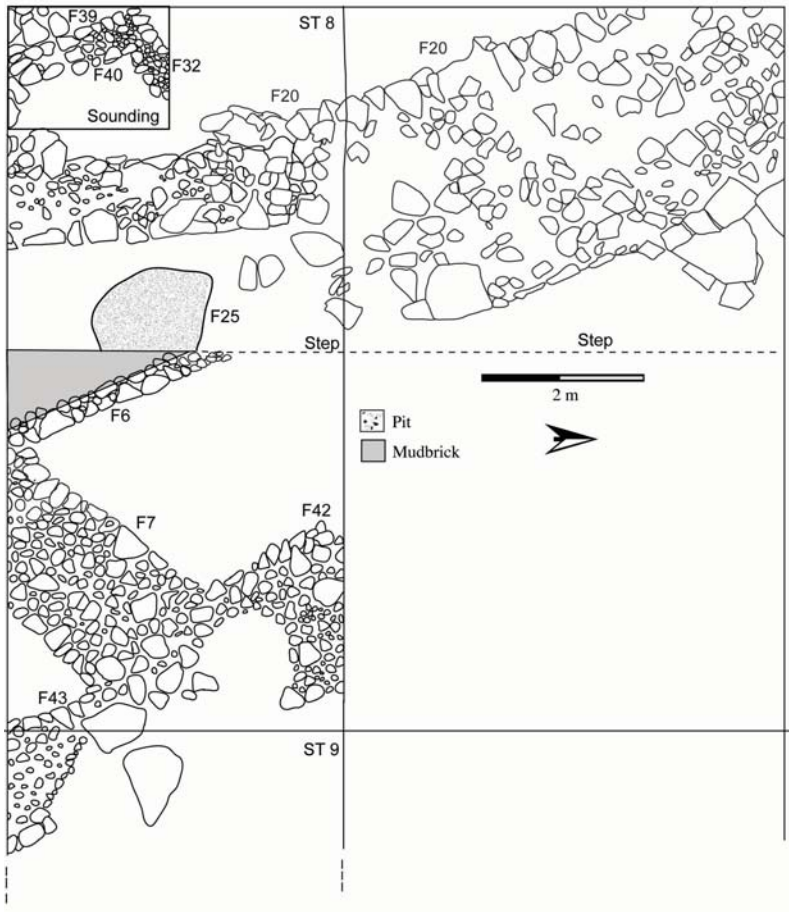

Fig. 15. Plan of ST 8 and ST 9 in eastern slope Step Trench.

Fig. 16. Photo of F20/F42 casemate wall in Trench ST 8.

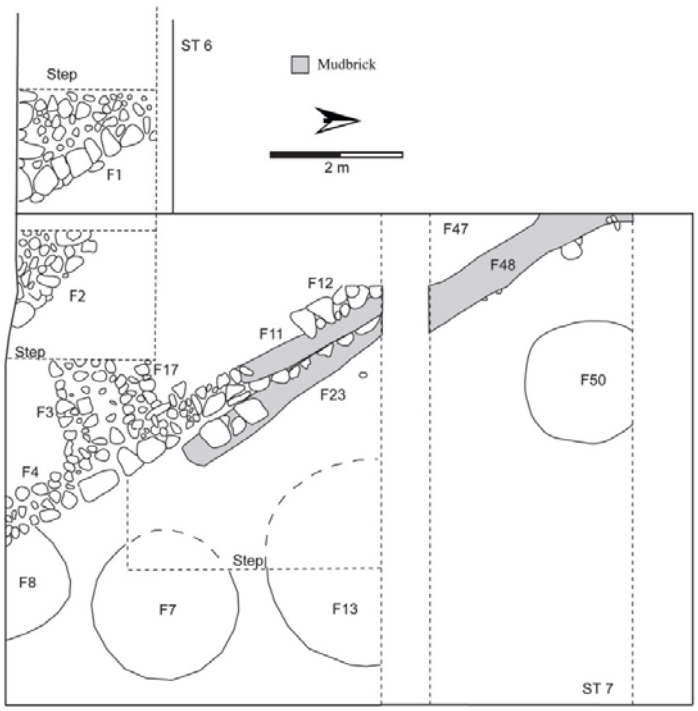

Fig. 17. Plan of ST 7 in eastern slope Step Trench.

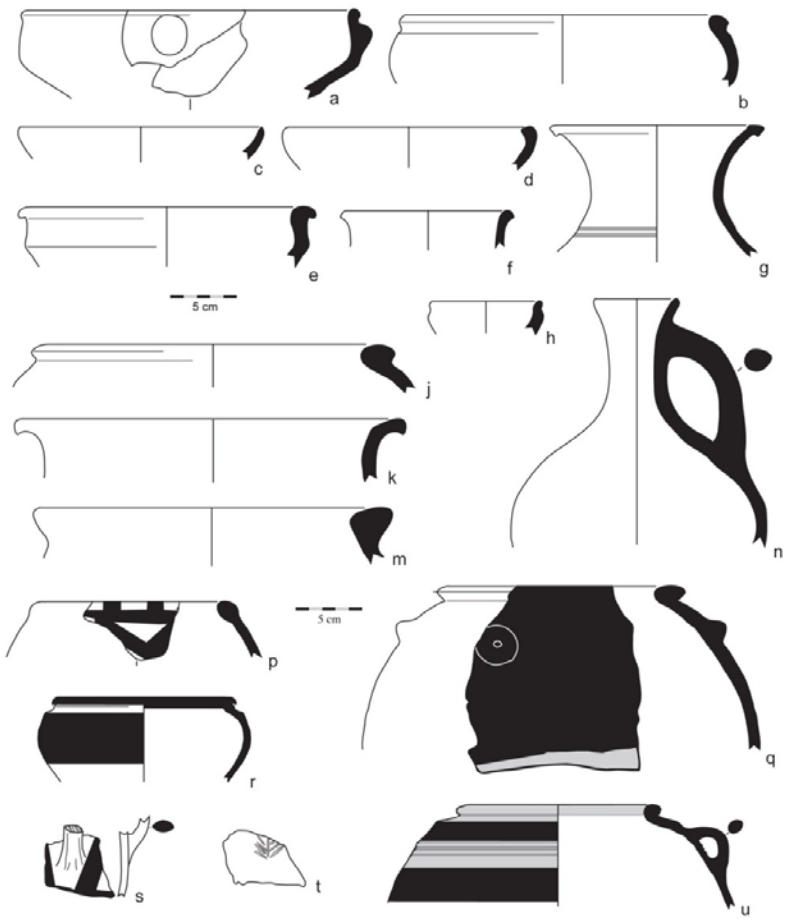

Fig. 18. Second millennium pottery (see appendix for individual descriptions).

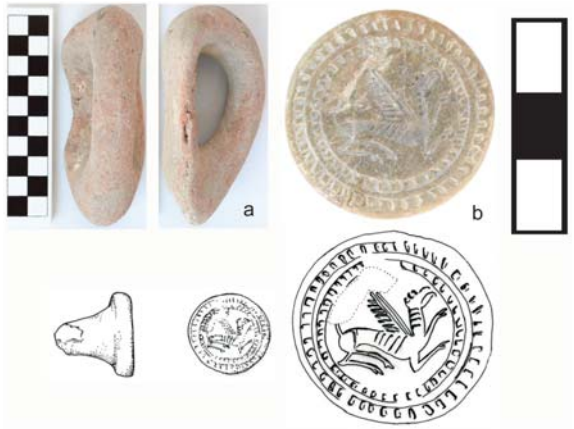

Fig. 19. Small finds from ST 7: a) “smoother” made from a broken pottery handle; b) a Middle or Late Bronze Age stamp seal.

Fig. 20. Photo of Early Iron Age architecture in USS 4.

Fig. 21. Pit F119, representative of the type of possibly industrial-use pits recovered in USS 4.

Fig. 22. Middle Iron Age sherd from Pit F120 with caprid standing at a stylized tree.

Fig. 23. Early/Middle Iron Age polished stone block with drilled holes.

Fig. 24. Middle Iron Age sherd with recut edge (possible for use as a seal or stamp).

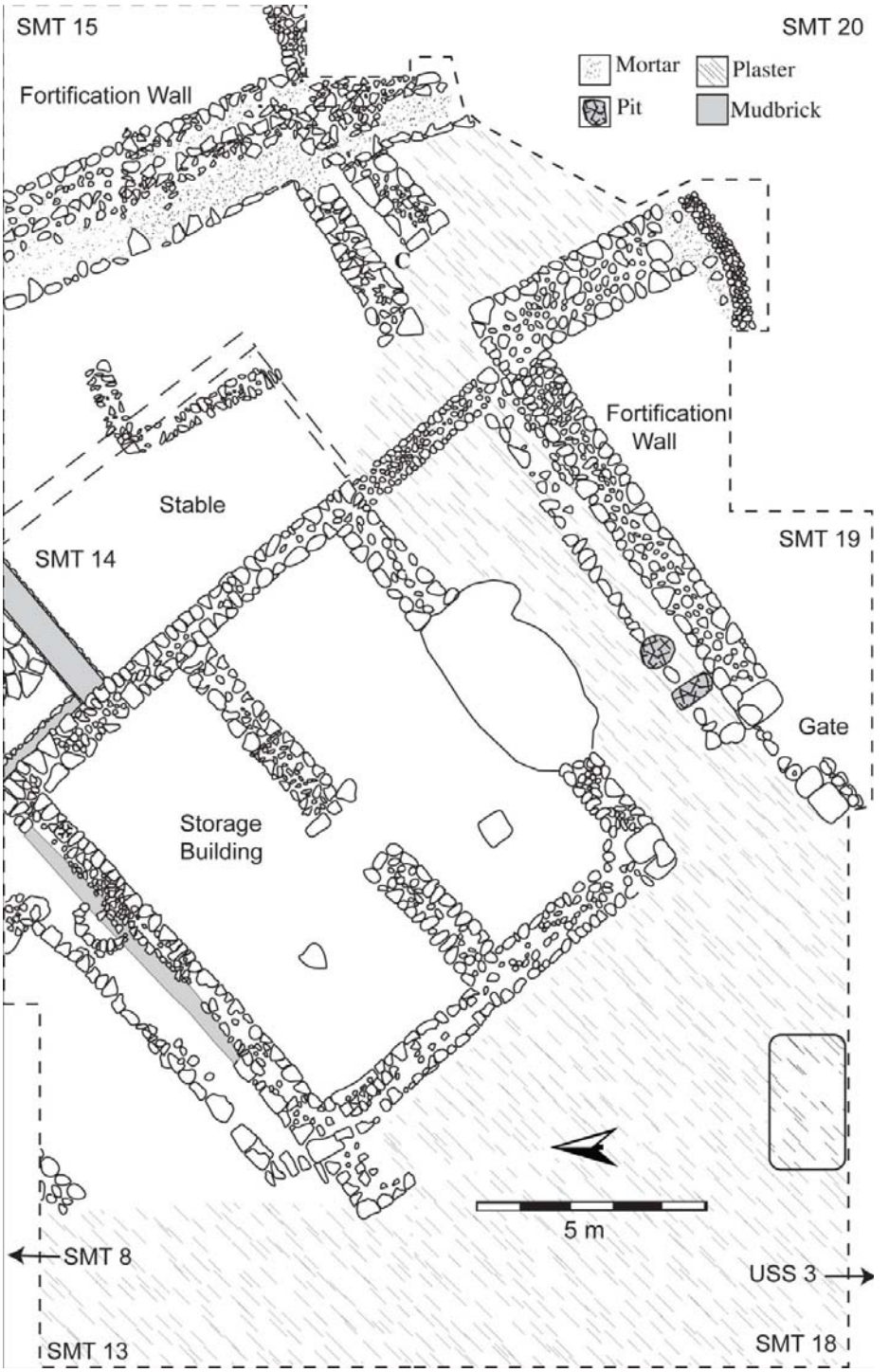

Fig. 25. Plan of Byzantine excavations on mound's summit through 2009.

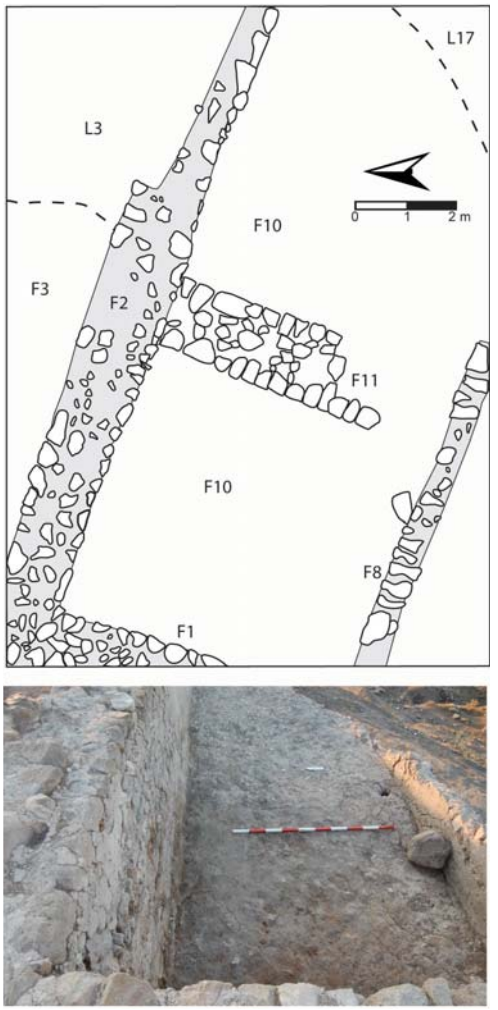

Fig. 26. Plan and photo of Byzantine room in Trench USS 3.

Fig. 28. The metal vessel found in deposit of metal items in USS 3.

Fig. 27. Processional cross, made of wood, with metal sheath, found in room in USS 3.

Fig. 29. Selection of tools and crosses found in room in USS 3.

Fig. 30. Photo of north terrace Byzantine trenches with features and loci labeled.

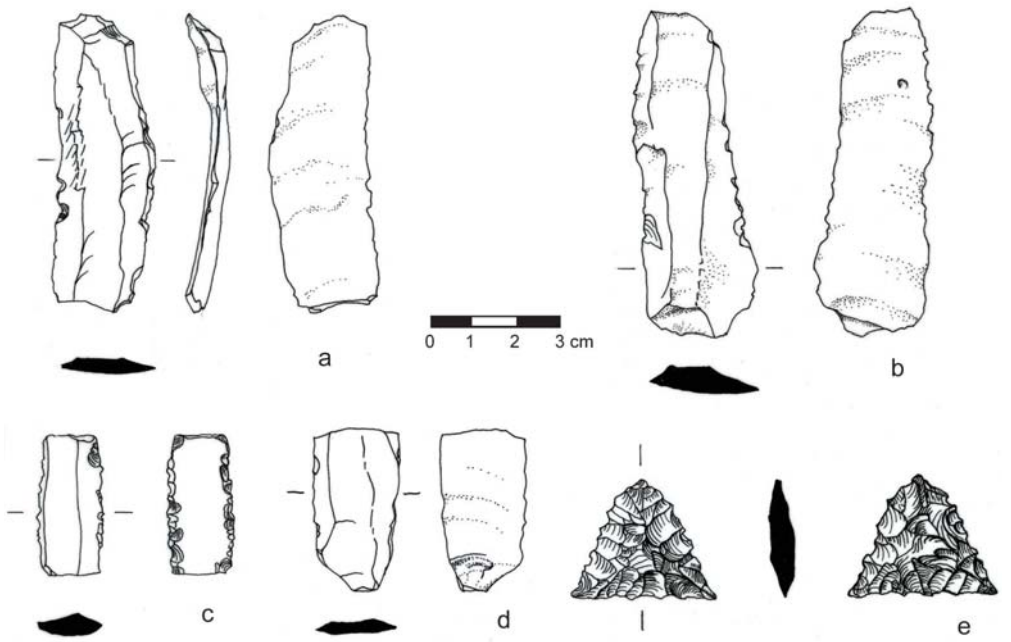

Fig. 31. Examples of blades from the Lower Southern Slope:
a. (FCN 9510; SES 1; L55) crested chalcedony blade, proximal end (bulb of percussion) removed, cutting tool, shows edge damage and retouch; b. (FCN 10190; LSS 3; L45) crested chert blade, with edge damage and retouch; c. (FCN 9940; SES 1; L70) crested blade segment, gloss on all edge surfaces; heavily retouched and heavy edge damage on both edges; d. (FCN 9375; SES 1; L53) proximal blade segment; e. FCN 9548; SES 1; L74) green-tinted obsidian isosceles projectile point.

Fig. 32. (SES 1; L41) Refit pieces of a jasper blade core.
Left: distal end of the attempt to remove a crested blade; core (right) discarded after blade removal failed.

Area on site	*Previous name of trench*	*New name of trench*	*Year opened*
Lower Southern Slope "LSS"	770.880	LSS 3	2000
	770.890	LSS 4	1998
	770.900	LSS 5	1998
	760.880	LSS 8	2000
	760.890	LSS 9	1998
	760.900	LSS 10	1999
Southeastern Slope "SES"	770.910	SES 1	2004
Upper Southern Slope "USS"	—	USS 3	2012
	790.890	USS 4	
	780.890	USS 9	2000
	—	USS 10	2012
Mount Summit "SMT"	820.880	SMT 8	2005
	810.880	SMT 13	2004
	810.890	SMT 14	2002
	810.900	SMT 15	2004
	800.880	SMT 18	2001
	800.890	SMT 19	2001
	800.900	SMT 20	2002
East Slope Step Trench "ST"	800.910	ST 6	2004
	800.920	ST 7	2004
	800.930	ST 8	1994
	800.940	ST 9	1994
Upper Northern Slope "UNS"	850.880	UNS 8	2006
	850.890	UNS 9	2005
North Terrace "NT"	940.970	NT 2	2005
	940.980	NT 3	2001
	930.970	NT 7	2006
	930.980	NT 8	2006
	920.970	NT 12	2008
Northern North Terrace "NTN"	950.970	NTN 7	2005
North Terrace Sounding "NTS" (not on Fig. 2)	910.920	NTS 1	1994

Table 1. Trench name conversion chart.

Period	*Dates*	*Trench locations*
Byzantine		
Middle Byzantine	9th-11th c CE	Summit and N. Terrace
Early Byzantine	7th-9th c CE	N. Terrace Trenches
Late Antique	3rd-7th/8th c CE	Survey
Roman	1st-3rd c CE	NTS 1
Hellenistic	3rd-1st c BCE	NTS 1, NT 2, Survey
Late Iron/ Achaemenid	5th-3rd c BCE late 8th/early 7th-5th c BCE	USS 4, UNS 8
Iron Age		
Middle Iron	Late 10th-late 8th/early 7th c BCE	USS 4 (also found in ST 6 and ST 7)
Early Iron	12th-late 10th c BCE	
Late Bronze		
LB II-Hittite Empire	14th-late 13th c BCE	LSS 3, USS 9, ST 8
LB I-Old Hittite	16th-14th c BCE	USS 9, ST 7, ST 8
Middle Bronze I-II	19th-17th c BCE	ST 7, ST 8
Early Bronze		
Early Bronze III	ca. 2300-2000 BCE	ST 9, USS 9-10?
Early Bronze II	ca. 2800-2300 BCE	LSS 3
Early Bronze I	ca. 3000-2800 BCE	LSS 3-5, SES 1, USS 9-10
Transitional	ca. 3100-3000 BCE	LSS 4, LSS 5, SES 1
Late Chalcolithic	ca. 3600-3100 BCE	LSS 4, LSS 5, SES 1
	ca. 4500-3600 BCE	LSS 5 Deep Sounding only
Middle Chalcolithic	ca. 5300-4500 BCE	LSS 5 Deep Sounding only

Table 2. Chronological phases represented at Çadır Höyük.

Taxa	LC	LC/EB	MBA	MBA/LBA	LBA	IRON	BYZ
very small mammal	26	2	0	4	15	33	0
small mammal	20	1	0	2	0	20	0
medium mammal	222	157	21	143	50	919	14
large mammal	52	13	6	85	31	201	124
medium artiodactyl	52	5	1	2	5	49	4
large artiodactyl	22	2	0	0	2	25	35
sheep/goat	170	43	6	43	53	493	37
Ovis aries	56	9	1	7	14	97	12
Capra hircus	45	4	0	4	11	112	8
bovid/cervid	27	1	0	0	3	15	4
Bos taurus	45	16	0	41	37	213	239
Capreolus	3	1	0	0	0	1	0
Dama dama	2	0	0	0	1	24	0
Cervus elaphus	2	0	0	0	1	6	0
Sus scrofa	94	23	3	23	19	179	61
small equid	3	0	0	0	2	12	0
large equid	6	6	1	0	2	41	0
Equus sp.	6	1	0	1	4	21	3
small carnivore	6	0	0	0	0	0	0
medium carnivore	9	1	0	0	4	1	0
Felis silvestris	2	0	0	0	0	1	1
large mustelid	0	0	0	0	0	1	0
Martes foina	0	0	0	0	0	31	0
Mustela nivalis	0	0	0	0	0	5	0
Meles meles	1	0	0	0	0	0	0
Canis sp. (dog?)	6	1	0	4	3	16	4
Vulpes sp.	17	0	0	1	0	8	0
hedgehog	3	0	0	0	0	1	1
rodent	0	0	0	0	0	10	0
Rattus	0	0	0	0	0	1	0
squirrel (*Sciurus*)	0	0	0	0	0	2	0
hare (*Lepus*)	55	0	0	1	2	11	1
reptile	1	0	0	0	0	1	0
tortoise (*Testudo*)	60	1	0	1	27	262	1
snake	5	0	0	0	0	0	0
amphibian	1	0	0	0	0	0	0
fish	1	1	0	0	0	0	0
birds	13	0	0	0	2	16	6
totals	*1033*	*288*	*39*	*362*	*288*	*2828*	555
shannon weaver index	2.339	1.736	1.121	1.576	2.06	2.148	1.22
% domestic	79.9	98.3	100	98	82.9	85.2	98.4
% wild	20.1	1.7	0	2	17.1	14.8	1.6

Table 3. Number of Identified Specimens (NISP), Shannon Weaver Diversity Index, and percentage of domestic and wild taxa from seven stratigraphic phases at Çadır Höyük.

Taxa	LC	LC/EB	MBA	MBA/LBA	LBA	IRON	BYZ
Sheep/Goat	34.9	41.7	54.5	35.8	36.3	40.7	10.2
Sheep	11.5	8.7	9.1	5.8	9.6	8.0	3.3
Goat	9.2	3.9	0.0	3.3	7.5	9.3	2.2
Cattle	9.2	15.5	0.0	34.2	25.3	17.6	66.2
Pig	19.3	22.3	27.3	19.2	13.0	14.8	16.9
Equid	3.1	6.8	9.1	0.8	5.5	6.1	0.8
Deer	1.4	1.0	0.0	0.0	1.4	2.6	0.0
Hare	11.3	0.0	0.0	0.8	1.4	0.9	0.3
Totals (%)	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Table 4. Frequencies of the major mammalian taxa from Çadır Höyük.

	LC	LC/EBA	MBA-LBA	LBA	Iron	Byz
LC	—	5.08	36.99	24.2	27.72	283.73
LC/EBA	0.166	—	13.3	5.98	3.88	101.34
MBA-LBA	<0.0001	0.004	—	7.18	21.14	59.46
LBA	<0.0001	0.1126	0.0664	—	5.04	99.53
Iron	<0.0001	0.275	<0.0001	0.169	—	341.26
Byz	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	—

Table 5. Chi square values (upper registers) and associated p values (lower registers) comparing frequencies of sheep/goat, cattle, pigs, and equids between occupational phases. Significant p-values (<0.05) are shaded in gray.

ANATOLICA XXXIX, 2013

VON ‚ANATOLIA' BIS ‚INSCRIPTIONS OF ANKARA': Zwanzig Jahre Forschungen zum antiken Galatien (1993-2012)

Altay Coşkun[*]

Abstract

Once poorly neglected by scholars of the Classical world, Galatia in the heartland of Anatolia has developed into one of the most productive areas of Ancient History, Graeco-Roman epigraphy, and Classical Archaeology in the course of the last few decades. Given the wealth and diversity of recent contributions and ongoing research activities, it is timely to present a concise overview that not only provides readers with easy access to at times remote publications, but also summarizes and contextualizes major results. This will allow us to point out some converging discoveries or insights as well as old and new views that may conflict with documentary evidence that has been recently found or better understood. Likewise, various new problems and re-opened questions that deserve scholarly attention in the future will be put forward. The debt that the scholarly community owes to Stephen Mitchell is outstanding, as the author of the most comprehensive study of roughly one millennium of Galatian history (1993) as well as the co-editor of the monumental Inscriptions of Ankara I, which he has produced together with David French (2012). These milestones of Galatian Studies will serve as a framework for this report.

Galatien im Herzen Anatoliens, einst ein kläglich vernachlässigtes Gebiet der klassischen Altertumskunde, hat sich im Laufe der vergangenen Generation zu einem äußerst produktiven Arbeitsfeld der Alten Geschichte, Epigraphik und Archäologie sowie benachbarter Disziplinen entwickelt. Ziel dieses Beitrages ist es, einen zusammenfassenden Überblick über die vielfältigen, teils entlegenen Veröffentlichungen und Projekte zu bieten, die unsere Kenntnisse eindrucksvoll erweitert haben. Ebenfalls in den Blick genommen werden sollen – soweit dem Verfasser bekannt – auch in Kürze anstehende Publikationsvorhaben sowie laufende Forschungsprojekte. Angesichts der Konzentration gegenwärtiger Untersuchungen auf den zentralanatolischen Raum können deswegen vielfach nur Zwischenbilanzen gezogen oder noch ausstehende Fragen und

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Der hier gebotene Überblick ist zwar um die Erfassung aller wichtigen Beiträge bemüht, stellt aber keinen Anspruch auf Vollständigkeit. Eine Bibliographie und eine Liste der zitierten Projektpräsentationen und Datenbanken im Internet findet sich am Ende des Beitrags. Grundgelegt wurde mein Interesse an Galatien im Rahmen des von Heinz Heinen geleiteten und von der DFG geförderten Projekts *Roms auswärtige Freunde* (SFB 600, Universität Trier, 2002-2008), welches zu meiner bislang erst in Teilen publizierten Trierer Habilitationsschrift führte (Coşkun, Habil. 2007). Anschließend wurden meine Galaterstudien dank eines Stipendiums der *Humboldt-Stiftung* während je mehrmonatiger Aufenthalte an der University of Exeter (2009 und 2011) mit der Unterstützung von Stephen Mitchell fortgeführt. Seit 2011 erlaubt mir ein Standard Research Grant des *Social Sciences and Humanities Council of Canada* (SSHRC) die Fortsetzung meines Projekts *New History of Ancient Galatia* am *Waterloo Institute for Hellenistic Studies*. Den genannten Personen und Institutionen gilt mein aufrichtiger Dank.

Für kritische und ergänzende Hinweise danke ich vor allem Stephen Mitchell und Oleg Gabelko sowie dem anonymen Gutachter.

Kontroversen benannt werden, die der weiteren Klärung harren. Herausragende Meilensteine der jüngeren Forschung und zugleich die Eckpfeiler dieser Darstellung bilden Stephen Mitchell's *Anatolia* (1993) sowie die von demselben gemeinsam mit David French herausgegebenen *Inscriptions of Ankara I* (2012).

PIONIERE DER GALATIENFORSCHUNG

Wer vor rund zwanzig Jahren einen Überblick über die Geschichte Galatiens gewinnen und sich dabei nicht mehr allein auf die Pioniere des 19. Jhs. verlassen wollte,[1] konnte immerhin auf je eine fundierte übergreifende Publikation für die beiden wichtigsten Städte zurückgreifen: zum einen auf die Sammlung der schriftlichen Zeugnisse für das antike Ankyra von Emin Bosch (1967), die in Teilen auch Ersatz für eine Stadt- und mit Abstrichen sogar Provinzgeschichte bot,[2] sowie zum anderen die umfassende Dokumentation der Grabungen, welche Pieter Lambrechts, John Devreker und Marc Waelkens seit 1967 für die Rijksuniversiteit te Gent in Pessinus durchgeführt hatten.[3] Für detailliertere Synthesen zum hellenistischen und römischen Galatien war man immer noch auf Felix Stähelins Büchlein ([2]1907) bzw. auf weit verstreute Seiten in David Magies Monumentalwerk *Roman Asia Minor* (1950) angewiesen.[4] Daneben blieben griffige Einführungen vor allem bibelwissenschaftlichen Arbeiten zu Paulus' Galaterbrief vorbehalten: hierfür ist an erster Stelle William Ramsay (1900), sodann vor allem F. F. Bruce (1969-1973) zu nennen.[5] Immerhin waren die Münzen des frührömischen Galatien just seit 1992 durch Band I von *Roman Provincial Coinage* leicht zugänglich.[6]

Die Beiträge Stephen Mitchells: Anatolia, Epigraphik und Pisidien

Die erste – und bisher einzige – umfassende Gesamtdarstellung der Geschichte Galatiens in hellenistischer, römischer und frühbyzantinischer Zeit legte Stephen Mitchell 1993 vor. Der Untertitel *Land, Men, and Gods in Asia Minor* kündigte ein weites Panorama unter Einbeziehung der politischen Geographie, Kultur und Religion der Galater an. Dieses Versprechen wurde nah an den literarischen und epigraphischen Quellen, aber zugleich auch unter ausgiebiger Berücksichtigung der damals bekannten numismatischen Zeugnisse und archäologischen Befunde eingelöst. Ein besonderer Vorzug liegt im Vermögen des Autors zum synthetischen Blick, der Einzelphänomene in ihren größeren historischen Kontexten zu beleuchten vermag. Zugleich stellt Mitchell

[1] Vgl. bes. Perrot 1867; Ramsay [1]1897/98, [2]1900 (vgl. z.B. auch idem 1939; sowie Mitchell 2004 zu einer Kurzbiographie); Stähelin [1]1897, [2]1907, Nd. 1973.

[2] Bosch 1967. Die wichtigste archäologische Publikation zu Ankara war Krencker/Schede 1936.

[3] Devreker/Waelkens 1984. Weiteres hierzu u. mit Fn. 22-26.

[4] Stähelin 1907/73; Magie 1950.

[5] Ramsay 1900. Sowie Bruce 1969-1973. Jüngere Arbeiten zum Galaterbrief sind u. in Fn. 48 genannt.

[6] Burnett u.a. 1992 (RPC I); vgl. auch Stumpf 1991. Daneben blieben wichtig: von Aulock 1968; 1976 (Lykaonien); 1977/79 (Pisidien); Devreker 1984 (Pessinus). – Zu rezenten Katalogen und zahlreichen Neubewertungen s. u. mit Fn. 24 und 60.

auch den ganzen Wirkungsbereich der Kelten im hellenistischen Kleinasien bzw. den vollständigen Raum der 25 v.Chr. eingerichteten und anschließend sukzessive erweiterten, von Paphlagonia bis Pamphylien reichenden Großprovinz Galatia dar. Damit wird er auch dem Haupttitel *Anatolia* weitgehend gerecht, zumal dieser in Mitchells Definition vor allem das Binnenland Kleinasiens bezeichnen soll. Bis heute ist jenes zweibändige Werk der Ausgangspunkt jeder eingehenden Beschäftigung mit der Geschichte Galatiens geblieben.[7]

Vorangegangen waren dieser Publikation eine Vielzahl von kleineren und größeren Studien, denen Mitchell sich seit dem Beginn seines Promotionsprojekts im Jahr 1970 Jahre vom Stützpunkt des *British Institute at Ankara* (BIAA) aus gewidmet hatte. Unter diesen ist der Katalog der ländlichen Inschriften (RECAM II 1982) vielleicht als wichtigster Einzelbeitrag für den Bereich Nordgalatiens zu nennen.[8] Ein Großteil seiner Arbeiten hatte aber schon früh den Süden der römischen Provinz, vor allem Pisidien, betroffen,[9] wohin sich sein Schwerpunkt in den Folgejahren weiter verlagerte:[10] So folgten bald schon – nunmehr als Gemeinschaftsprodukte – die ersten nennenswerten Monographien zu Kremna (1996) und Antiochia (1998), den beiden wohl wichtigsten römischen Veteranenkolonien in Kleinasien.[11] Das *Pisidia Survey Project* wurde bis heute fortgesetzt, wobei die Leitung 1998 an Lutgarde Vandeput überging. Eine umfassende digitale Dokumentation ist derzeit in Vorbereitung.[12] Gegenwärtig widmet sich Mitchell im Rahmen des Berliner Exzellenzcluster *Topoi* den frühchristlichen Inschriften in Phrygien, Lykaonien und Isaurien (Leitung: Ulrich Huttner) und der Ausbreitung des Christentums in Kleinasien (u.a. mit Christoph Markschies). Dieser kirchengeschichtliche Schwerpunkt war bereits in Anatolia angelegt, dessen fast ganzer zweiter Band der frühen Kirchengeschichte gilt, und wurde auch die weitere Einzelstudien etwa zu montanistischen und jüdischen Einflüssen in Ankyra fortgesetzt.[13]

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[7] Mitchell: Anatolia. Land, Men, and Gods in Asia Minor, Bd. I: The Celts in Anatolia and the Impact of Roman Rule; Bd. II: The Rise of the Church, Oxford 1993. Vgl. die sehr anerkennenden Rezensionen z.B. von Clive Foss, *JRS* 85, 1995, 301f.; Peter Herrmann, *HZ* 261.2, 1995, 494-496; Raymond Van Dam, *BMCR* 95.02.02; Bernard Rémy, *AC* 65, 1996, 466-468; Thomas Corsten, *Klio* 78.2, 1996, 535-538; Maurice Sartre, *Latomus* 55.2, 1996, 482-484; Biagio Virgilio, *Athenaeum* 84, 1996, 579-591; Léopold Migeotte, *LEC* 65.3, 1997, 272f.; Margherita Cassia, *RCCM* 41.1, 1999, 140-145.

[8] Mitchell PhD 1974; 1982. Eine umfassende Neuauflage unter Ergänzung von Neufunden sowie detaillierten Kommentaren ist gemeinsam mit Altay Coşkun in Vorbereitung (RECAM II^2). Zu Nordgalatien vgl. auch z.B. Mitchell 1974a; 1986 (s. hierzu aber u. Fn. 46).

[9] Mitchell 1974b; 1976 (vgl. hierzu demnächst Lemcke/Coşkun 2013); 1978; 1979 (zu den Kolonien s. jetzt auch u. Fn. 50); 1992. – Daneben verdient Hervorhebung: Belke/Mersich 1990 (TIB VII).

[10] Z.B. Mitchell 1994a; 2002; 2003b, 21f.; 2008c.

[11] Mitchell 1996; Mitchell/Waelkens 1998. – Zu Antiochia vgl. auch Nollé 1995 und Halfmann 2007 sowie die Projektseite des Kelsey Museum, 2006. Weiteres zu den Kolonien in Galatien u. in Fn. 50.

[12] S. die Projektseite des *Pisidia Survey Project*, 2012. Vgl. auch Vandeput/Köse/Aydal 1999; Vandeput/Köse 2003.

[13] Vgl. die Webseiten *Inscriptiones Christianae Asiae Minoris Antiquae* (ICAM) und *The Expansion of Early Christianity in Asia Minor*. Vgl. ferner Mitchell 1993, Bd. II; 2005 (Montanismus); 2008c (heidnische und christliche Votivmonumente).

Die Beiträge Karl Strobels: Keltenfurcht, Ethnogenese, Tavion

Nach Mitchell's *Anatolia* – sowie in enger Auseinandersetzung mit der dort in gediegener Form greifbaren eher traditionellen Sicht auf die früheste Geschichte Galatiens – sind zahlreiche neue Impulse zur Beschäftigung mit Galatien von Karl Strobel ausgegangen, der seit 1998 an der Universität Klagenfurt lehrt. Paradigmatisch sind seine beiden Aufsätze im Band *Forschungen zu Galatien* von 1994: Zum einen legte er den Versuch einer detaillierten Landschaftsbeschreibung als Grundlage für die mehrdimensionale Erforschung jenes – nur aus heutiger Sicht – entlegenen historischen Raums vor; viele weitere Beiträge etwa zur Präzisierung der Landschaftsentwicklung, Einbeziehung der Geomorphologie oder Erfassung des Verlaufs römischer Straßen sollten folgen.[14]

Daneben forderte Strobel schon 1994 eine tiefgreifende Revision der Geschichte Galatiens angesichts der massiven Instrumentalisierung des Keltenbildes durch die hellenistischen Nachbarn. Unter diesen Vorzeichen stehen *Die Galater*, dessen Band I 1996 von ihm als bisher umfassendste Untersuchung der Wanderung der Kelten bis zu ihrer Niederlassung in Zentralanatolien vorgelegt wurde. Als weitere Vorzüge dieser Arbeit mag man die Einbeziehung der modernen Ethnogenese-Forschung, aber auch die Berücksichtigung der Klimaveränderungen in Zentralanatolien in mittelbyzantinischer Zeit benennen.[15] Angeregt wurden hierdurch viele weitere, oft freilich Widerspruch erhebende oder zumindest Differenzierung einfordernde Studien besonders zum frühen Hellenismus (3.-2. Jh. v.Chr.), auf die weiter unten näher einzugehen sein wird.[16] Das Thema der Instrumentalisierung der Furcht vor den Galatern oder des Prestigegewinns durch einen Sieg über dieselben ist jedenfalls vielfach aufgegriffen worden und hat nunmehr durch Erich Kistler eine systematische Dokumentation und Abhandlung der literarischen und archäologischen Zeugnisse gefunden (2007).[17]

Von 1997 bis 2009 verlegte Strobel seinen Schwerpunkt auf das Trokmerland im östlichen Halysbogen, insbesondere auf ihr in der heutigen Provinz Yozgat gelegenes urbanes Zentrum Tavion, das die hethitische Stadt Tawinija fortsetzte und seine Blütezeit in frühbyzantinischer Zeit erlebte. Strobels dort gemeinsam mit Christoph Gerber durchgeführten Surveys streben danach, die Siedlungsgeschichte in einer welthistorischen Perspektive zu beleuchten. Zahlreiche Einzelberichte haben unsere Kenntnisse über die mehrtausendjährige Entwicklung jenes historischen Raumes reichlich erweitert. Vor allem die Publikation des mehrere hundert (weit überwiegend spätantike) Inschriften

[14] Strobel 1994a. Weiteres unten zu Tavion (mit Fn. 18), zu Meilensteinen (Strobel 2007c) sowie zur historischen Geographie und Kartographie (Fn. 53-54).

[15] Strobel 1994b; 1996; 1999; 2002a. Vgl. bereits in Ansätzen Strobel 1991. Zum Versuch der Fortsetzung in die Kaiserzeit (Strobel 2007a) s. u. Fn. 55. Der seit langem angekündigte zweite Band soll sich in Bearbeitung befinden.

[16] S. u.bes. mit Fn. 42.

[17] Kistler 2009. Schmidt-Dounas 2000, 232-244; 293-319: Kap. VI: Die Galatersiege der 1. Hälfte des 3. Jhs. v.Chr. in der Propaganda hellenistischer Herrscher; Barbantani 2001; Mitchell 2003a; Strootman 2005; Coşkun 2005 2012a; 2013g; Gabelko 2006; Koehn 2007.

umfassenden Corpus wird derzeit mit Spannung erwartet. Weitergeführt werden die Katalogisierung sowie die Grabungen vor Ort nunmehr von Peter Scherrer (Graz).[18]

GORDION UND PESSINUS

In den 1990er Jahren erhielten archäologische Forschungen auch in den urbanen Zentren des Sangarios-Bogens neuen Antrieb. Dabei hatte man in Pessinus und Gordion schon während des vorangehenden Jahrzehnts an frühere Kampagnen angeknüpft. Die Grabungen in der phrygischen Königsstadt Gordion (bzw. der galatisch-römischen Kleinstadt Vindia), einst begonnen von Alfred Körte (1893/1900), wurden – nach einem halben Jahrhundert der Vernachlässigung – unter der Obhut des Penn Museum erneut in Angriff genommen: Nach ihrer systematischen Grundlegung durch Rodney Young (1950-1973) liegt die Direktion seit 1988 bei G. Kenneth Sams und Mary M. Voigt, wobei Teile der Grabungen zwischenzeitlich auch von Lisa Kealhofer und A.L. Goldman geleitet wurden.[19] Am besten aufgearbeitet ist bislang die phrygische Epoche,[20] jedoch liegen mittlerweile auch wichtige Befunde zur hellenistisch-galatischen und vor allem römischen Zeit vor. Unklarheiten bestehen aber noch hinsichtlich der Identifikation latènezeitlicher bzw. keltischer Einflüsse sowie in den daraus zu ziehenden Rückschlüssen auf interkulturelle und politische Entwicklungen in Gordion unter galatischer Vorherrschaft. Dagegen verdichten sich jetzt die Zeugnisse dafür, dass Gordion etwa von neronischer bis trajanischer Zeit ein römisches Militärlager hatte: Dies dürfte sowohl die Verproviantierung des am östlichen Limes eingesetzten Heeres als auch die Zuführung von Rekruten und die Kommunikation mit Rom abgesichert haben.[21]

Durch große Kontinuität zeichnet sich auch die Genter Grabung in Pessinus aus, die bis zur Emeritierung John Devrekers fortgeführt und 2008 durch eine gemeinsam mit Inge Claerhout verfasste attraktiv illustrierte und zugleich recht handliche Stadtgeschichte abgeschlossen wurde. Kurz zuvor waren auch die Grabungen auf der Akropolis umfassend dokumentiert worden (2003), gefolgt von wichtigen Beiträgen zur Monumentalarchitektur aus der Feder von Angelo Verlinde.[22] Die epigraphischen und literarischen Zeugnisse (2. Jh. v.-8. Jh. n.Chr.) hat Johan Strubbe in einem kommentierten zweisprachigen Corpus zusammengefasst (2005), wobei Devreker und Alexandru Avram

[18] Strobel/Gerber 2000; 2003; 2007; 2010; Gerber 2009. Vgl. zudem Weber-Hiden 2003 zur Systematisierung der Keramikfunde; Christof/Koiner 2010 zu kaiserzeitlichen Architekturfunden; sowie die Projektseite *Tavium – eine antike Stadt in Zentralanatolien*.

[19] Bequemen Zugang zu den Zwischenergebnissen verschafft eine ansprechende, gelegentlich aktualisierte und ergänzte Webpräsentation des *Gordion Archaeological Project*, 2009-2011. Größere Übersichten bieten z.B. Voigt 1994; Darbyshire/Pizzorno 2002; Kealhofer 2005, 1-8; Sams 2005; Voigt 2005.

[20] Voigt u.a. 1997; Voigt/Henrickson 2000; Voigt 2005; Kealhofer 2005.

[21] Hellenistisch-galatisch: Roller 1987; Voigt 2003; Sams 2005, 13f. Sowie römisch: DeVries 2005; Goldman 2005; Darbyshire/Harl/Goldman 2009. Vgl. auch Strobel 2002a, bes. 9; 16-26; 2002c; 2004b sowie Coşkun 2006 bzw. 2012c, bes. Anm. 37; 2014d; s. ferner weiter unten die Diskussion zur sog. ‚galatischen Keramik' (u. mit Fn. 38-40). Römisch: Goldmann 1997; 2005; Bennett/Goldman 2007; 2009; auch Coşkun 2009c, 248; Marston 2012.

[22] Claerhout/Devreker 2008; Devreker/Thoen/Vermeulen 2003; Verlinde 2010; 2014. S. auch die umfangreiche Dokumentation auf der Projektseite des *Pessinous Excavations Project*, 2006-10.

wichtige Nachträge vorgelegt haben.[23] Melih Arslan verdanken wir einen Katalog der Münzen von Pessinus und Gordion.[24] Obwohl die Leitung weiterer Grabungen erst seit 2009 bei Gotcha Tsetskhladze (Melbourne) liegt, sind in den letzten Jahren zahlreiche neue Beobachtungen zur Ausdehnung des Siedlungszentrum sowie zum Umland von der Eisenzeit bis in die frühbyzantinische Epoche gemacht worden.[25] Gegenstand engagierter Diskussion sind derzeit Fragen zur Kontinuität des Kybele-Kultes von der phrygischen bis in die römische Zeit, zur Datierung und Identifizierung des frühkaiserlichen Tempels sowie zu Organisation und Auswirkung des Kaiserkultes in Pessinus.[26]

ARCHÄOLOGISCHE FORSCHUNGEN IN ANKYRA

Die lange Vernachlässigung der damaligen Metropolis und heutigen Hauptstadt der Türkei ist vor diesem Hintergrund besonders überraschend. Ausgenommen von diesem Desinteresse war im Wesentlichen das Sebasteion, welches schon zu Atatürks Zeiten freigelegt und von Daniel Krencker und Martin Schede solide publiziert wurde. Freilich rekonstruierten diese einen ursprünglich attalidischen Men-Tempels ionischen Stils, in welchem der Theos Sebastos nur *synnaos theos* gewesen sowie welcher erst im 2. Jh. n.Chr. im korinthischen Stil restauriert und dabei überhaupt erstmals vollendet worden sei. Diese Ansicht wurde schon vom Zeitgenossen Edmund Weigand in Frage gestellt, da Architektur und Dekor auf einen Bau etwa in spätaugusteischer Zeit verwiesen. Vollständig durchgesetzt hat sich diese Rekonstruktion aber erst in den letzten Jahren, und zwar nunmehr mit den epigraphisch und numismatisch abgesicherten exakten Baudaten 2 v.Chr. bis 14 n.Chr.[27]

Gerade noch rechtzeitig konnte dieses Ergebnis in einem bereits weit fortgeschrittenen Projekt zur Aufarbeitung der Altertümer Ankyras Berücksichtigung

[23] Strubbe, I.Pessinus = IK 66, 2005. Der Band ist grundsätzlich ansprechend gestaltet, aber es überrascht, dass Strubbe zwei der wichtigsten kaiserzeitlichen Inschriften (Nr. 17f.), die Ehrungen der Priester Ti. Claudius Heras und seines Sohnes Ti. Claudius Attis Deiotaros durch den Kultverein der Kybele nicht, wie schon zutreffend von Körte 1897 und 1900 (= OGIS II 540f.) vorgeschlagen, in die frühere bzw. spätere flavische Zeit, sondern wie schon Ritterling 1925, 1509 ins ausgehende 2. Jh. datiert; vgl. auch die Kritik von Mitchell 2008a. – Sowie Devreker, Verreth 2006; Devreker, Laes, Strubbe 2010; Avram 2012; Avram, Tsetskhladze 2013.

[24] Arslan 2006. Eine Dissertation zu den Münzen von Pessinus bereitet derzeit Hacer Kumandaş Yanmaz unter Arslans Betreuung im Museum for Anatolian Civilizations, Ankara, vor. Vgl. aber auch Coşkun 2009a mit neuen Vorschlägen zu Datierungen und Prägeautoritäten; auch Strobel 2004.

[25] Vgl. Tsetskhladze 2009; 2013. Die Webseite des Projekts befindet sich derzeit noch im Aufbau.

[26] Mit der neuen Chronologie der Ankyraner Priester-Listen (s. u. mit Fn. 27 und 46) fällt die Argumentation für die bisherige Identifikation des tiberischen Monumentaltempels in Pessinus mit einem Sebasteion (z.B. Strubbe, I.Pessinus = IK 66, 2005, 33f.) in sich zusammen. Vgl. bereits die Zweifel bei Burrell 2004, 170-172; Coşkun 2009a, 184f. Des Weiteren verdient auch die Rolle der Sebastophanten und der mögliche Mysteriencharakter des Kaiserkultes in Pessinus und Ankara eine Neubehandlung; vgl. Coşkun ca. 2014b. Verlinde ca. 2014 widerlegt nicht nur Pensabenes (2004) Identifikation des Pessinunter Monumentaltempels mit einem frühhellenistischen Kybeleheiligtum, sondern tritt nun für ein spätaugusteisches Sebasteion ein. Vgl. auch Strobel 2009.

[27] Krencker/Schede 1936, gefolgt z.B. von Bosch 1967, 40; Bennett 2003, 5 (aber verworfen 2006, 206-208, wo von einem Baubeginn 14 n.Chr. ausgegangen wird); Arslan 2004, 184. Contra z.B. Weigand 1937; Mitchell 1986; 1993, I 86-88, 100-107; Rumscheid 1994, I 6; mit neuer Chronologie Coşkun, Habil. 2007; 2009, 176 Anm. 8. Weiteres im Folgenden.

finden, welches in die Publikation der ersten umfassenden Monographie zum römischen Ankara zugleich in türkischer und englischer Sprache mündete. Die Initiative zu diesem Vorhaben hatte Nalan Akyürek Vardar bereits 1998 ergriffen, unter deren Betreuung Susan Cooke die erste systematische Bestandsaufnahme der römerzeitlichen Architekturbefunde im Rahmen ihrer Magisterarbeit vorgelegt hatte. Doch wurde diese Arbeit – wohl auch wegen des unzeitigen Todes von Akyürek Vardar (2002) nicht fortgesetzt, wenngleich sie Eingang etwa in die Arbeiten von Julian Bennett fanden, aus dessen Feder bis vor kurzem noch die einzigen konzisen Übersichten stammten.[28] Sodann übernahmen es mit Musa Kadıoğlu und Kutalmış Görkay zwei Archäologen der Universität Ankara, die architektonischen Überreste der römischen Stadt zu sichten und zu dokumentieren, wobei hier die Schwerpunkte auf die Großbauten (Sebasteion, Stadion, Theater und Bäder, auch Straßen) gelegt wurde (2002-2007).[29] Erst im späteren Verlauf wurde Stephen Mitchell einbezogen: Damals beschäftige er sich wieder mit dem Sebasteion, nicht nur aus Interesse an der Kultgeschichte Ankyras, sondern auch zwecks Erstellung eines epigraphischen Corpus. Die Inschriften bildeten die vornehmliche Grundlage für seine historische Einführung in das Gemeinschaftswerk, wobei er besondere Akzente auf die Chronologie der Tempelgeschichte setzt sowie eine neue Synthese zur galatischen Aristokratie während der Hohen Kaiserzeit bietet.[30]

Urbanisierung im römischen Galatien

Für Ankyra gleichwie für die zuvor genannten Städte ist aus historischer Sicht Folgendes recht bedeutsam: Trotz der immer noch weit verbreiteten Ansicht, die Provinzgründung im Jahre 25 v.Chr. sei unmittelbar mit einem starken Impuls zur Urbanisierung einhergegangen, scheinen die meisten architektonischen Befunde in jenen Städten erst aus dem 1., wenn nicht 2. Jh. n.Chr. zu stammen; das Ankyraner Sebasteion, das freilich nur bedingt als Element einer griechisch-römischen Polis anzusprechen ist, erscheint mit gewaltigem Abstand als das früheste Großobjekt, während die Fertigstellung des imposanten Tempelkomplexes in Pessinus bislang nur wegen einer Fehldatierung der Ankyraner Priesterlisten in die tiberische – statt plausibler in die claudische – Zeit gesetzt wurde.

Für die erheblichen Spannungen oder Widersprüche, die sich hieraus ergeben, seien zwei Beispiele angeführt: Kadıoğlu und Görkay neigen – entgegen der Spätdatierungen Mitchells – tendenziell dazu, qualitativ hochwertige Architekturelemente – auch ohne eindeutige Dekors, Inschriften oder Münzen – in die augusteische Zeit zu

[28] Kadıoğlu/Görkay/Mitchell 2011, 13-16 zur Projektgeschichte; vgl. ergänzend Mitchell/French 2012, VII-IX. Einige verstreute Zusatzinformationen finden sich auf der Webseite des Anatolian Museum of Civilization, Ankara. Sowie Cooke, MA 1998 und Bennett 2003; 2006b; auch 2009a.

[29] Kadıoğlu 2004; Görkay 2006; Kadıoğlu/Görkay 2007; Görkay ca. 2011. Ergänzend sei hier auf Kaytan 2008 zur Wasserversorgung des kaiserzeitlichen Ankyra hingewiesen.

[30] Kadıoğlu/Görkay/Mitchell 2011. Vgl. auch Mitchell 2007a; 2008a; 2008b; Mitchell/French 2012. Noch nicht berücksichtigt sind dort folgende Titel zur galatischen Aristokratie: Settipani 2000, 454-467 (mit Stammbaum); Coşkun, APR und GTHW (s.vv. Tolistobogii, Tosiopi); 2011a.

datieren; [31] und Rudolf Haensch, der ausgezeichnete Arbeiten über die Statthalterresidenzen des römischen Reiches vorgelegt hat, warnt zwar einerseits vor anachronistischen Vorstellungen allgemein von antiken ‚Hauptstädten' sowie speziell auch von permanenten Statthalterresidenzen (vor dem späteren 1. Jh. n.Chr.); trotzdem bleibt er im Fall Ankyras den traditionellen Sichtweisen verhaftet.[32]

Demgegenüber betont Altay Coşkun das beträchtliche Desinteresse des ersten Kaisers an der Schaffung städtischer Infrastrukturen für die vielfach zu neuen Poleis zusammengeführten Gemeinden. Und zumindest in den Gebieten, in denen keine Veteranenansiedlung unter demselben stattfanden, schlägt Coşkun vor, von einer „sanften Provinzialisierung" zu sprechen. Dagegen führt er die massive Verstädterung in Zentralanatolien vor allem auf die neuen Erfordernisse seit dem Partherkrieg unter Nero und der Reorganisation des östlichen Limes unter den Flaviern zurück, was durch die jüngsten Beobachtungen Julian Bennetts, Andrew Goldmans und John Marstons zum römischen Gordion gestützt wird.[33] Hiermit konvergiert zudem etwa Mitchells recht später Ansatz für zahlreiche Ankyraner Inschriften, welche auf die Existenz einer differenzierteren Polisorganisation schließen lassen; anders als im Corpus von Bosch findet sich beispielsweise bei Mitchell-French kein positiver epigraphischer Beleg für die Phylenorganisation vor dem 2. Jh., ohne dass hierdurch freilich ein Terminus a quo für deren Einführung gewonnen wäre.[34]

Weitere archäologische Befunde aus Galatien

Unter den archäologischen Aktivitäten jenseits der vier bedeutendsten Städte Kerngalatiens verdient vor allem die systematische Erfassung der Festungen aus hellenistisch bis byzantinischer Zeit durch Levent Egemen Vardar und Nalan Akyürek Vardar Erwähnung.[35] Die Erforschung von Gordiukome, das unter Augustus zu Juliopolis umbenannt wurde und zur Provinz Bithynien geschlagen wurde, findet derzeit unter Leitung von Mustafa Metin (Anatolian Museum of Civilization, Ankara) statt, die neu gefundenen Münzen bereitet Fatih Onur (Akdeniz Universität, Antalya) zur Publikation

[31] Kadıoğlu/Görkay/Mitchell 2011. Vgl. hierzu die Rezension von Coşkun 2013c.

[32] Haensch 1997; 2006.

[33] Coşkun, Habil. 2007; 2008a; 2009a; 2009c; 2013a. Zu Gordion s.o. Fn. 21. Traditionell hingegen ist die immer noch wichtige Synthese von Bennett 2006.

[34] Mitchell in Kadıoğlu/Görkay/Mitchell 2011, bes. 42f.; Mitchell/French, I.Ankara I S. 507 (Register). Ins 2. und nicht mehr ins 1. Jh. werden jetzt treffend I 80 (=Bosch 75) und I 123 (=Mitchell 1977, Nr. 9) datiert. Nicht überzeugend ist allerdings die Datierung von Bosch 1967, Nr. 98 (Trajanische Stifterinschrift) in die Zeit des Antoninus Pius durch Mitchell/French, I.Ankara I 8; plausibler wäre 98 n.Chr. (Coşkun 2013e). Diese Kontroverse wird Auswirkungen auf zahlreiche weitere epigraphische und genealogische Zusammenhänge haben. – Umfassende Diskussionen und Dokumentationen etwa zu den Phylen Galatiens haben Bennett 2006b, 194-197; 219 und Kunnert 2012, 153-165; 326-328 vorgelegt; problematisch ist aber, dass letztere (wie schon Bosch 1967, 143) ihre erste Schaffung in den galatischen Städten auf den Anfang der Provinzialisierung datiert.

[35] Vardar/Akyürek Vardar 1996; eine englische Zusammenfassung geben Mitchell/Darbyshire/Vardar 2000, 88-93.

vor.[36] Das byzantinische Pilgerzentrum der Kolonie Germia erkunden gegenwärtig Philipp Niewöhner und Klaus Rheidt im Auftrag des DAI.[37]

Eine noch nicht hinreichend erkannte Bedeutung kommt auch den Untersuchungen zur sogenannten ‚galatischen Ware' von Mehmet und Nesrin Özsait zu: Während sich Belege für diese Keramik zuvor in erster Linie auf Gordion konzentrierten, freilich auch in Ankyra und Tavion in relativ geringen Mengen nachgewiesen waren, konnte nun auch ihre große Verbreitung im östlichen Königreich Pontos – und damit deutlich jenseits des Einflussgebietes der galatischen Trokmer – nachgewiesen werden.[38] Damit erhärten sich die Zweifel Ferdinand Maiers an einem Latène-Einfluss auf diesen Typ: Er hatte schon 1963 vielmehr eine Mischung phrygischer und hellenistischer Macharten und Dekors erkannt. Dabei liegt der Beginn der von ihm postulierten Zeitstellung (Ende des 4. Jhs. bis Mitte des 2. Jhs. v.Chr.) mehr als eine Generation vor dem Eindringen der Kelten in Kleinasien (ab 278 v.Chr.).[39] Aus diesen – und weiteren – Gründen sollte von nun an besser von ‚phrygisch-hellenistischer Keramik' gesprochen werden. Damit scheidet eine wichtige Quellengattung aus der immer noch nicht abschließend geführten Diskussion über einen längerfristigen Kulturaustausch zwischen den Kelten Osteuropas und den Galatern aus.[40]

Geschichte der Galater in hellenistischer Zeit: Von der Landnahme bis zum Königtum des Deiotaros

Die Rekonstruktion der sozio-politischen Geschichte der Galater hat ebenfalls von den sich teils ergänzenden, teils konfligierenden Arbeiten Mitchells und Strobels

[36] S. auch die knappe Projektpräsentation auf der Homepage des Anatolian Museum of Civilizations, Ankara.

[37] Vgl. Niewöhner/Rheidt 2010; Niewöhner 2010; sowie die Projektseite *Die Michaelskirche in Germia*, 2012. Grundlegend zur Geschichte des Ortes ist immer noch von Aulock 1968.

[38] Özsait/Özsait 2003, mit Verbreitungskarte auf S. 324. Wegen der Hauptfunde im hellenistischen Gordion hatte Zahn 1907, 225-234 den Namen geprägt. Maier 1963, 224 beschreibt diese Keramik wie folgt: „Der Ton ist feingeschlämmt, hart gebrannt, im Bruch meist rot bis rotbraun, gelegentlich auch mit dem breiten grauschwarzen Kern reduzierenden Brandes. Die Oberfläche ist hell-lederbraun, auf dekorierten Schauseiten fein geglättet und daher von der Wirkung einer Malfarbe. Bei dieser ausgezeichneten Machart sind die Gefäßwandungen, besonders bei niedrigen Breitformen, oft sehr dünn." Von „hellenistisch-pontischer Keramik" sprach bereits Akarca 1960.

[39] Maier 1963, bes. 231; 237f.; vgl. auch Darbyshire/Mitchell/Vardar 2000, 84. Demgegenüber geht etwa noch Müller-Karpe 1988 von einem Latène-Einfluss aus; Ähnlichkeiten betonen z.B. auch Bittel 1976, 249; Polenz 1978, 210f. Als Produktionszentrum gilt das trokmische Tavion bei Strobel/Gerber 2000, 253, 256-259. Vgl. auch Strobel 2002, 15, 27-30; Laflı 2003, 153-55; Weber-Hiden 2003, 255.

[40] Die Ähnlichkeit mit Latène-Keramik ergibt sich vor allem durch die jeweils unabhängige Beeinflussung durch die hellenistische Kultur. Zudem ist zu berücksichtigen, dass Gordion trotz seiner Abhängigkeit von den Tolistobogiern noch bis zum Eintreffen des Cn. Manlius Vulso das Zentrum phrygischer Kultur in Anatolien blieb (vgl. Roller 1987). Die Seltenheit jener Keramik im Großraum Ankyra und ihr vermehrtes Vorkommen östlich des Halys erklärt Coşkun, Habil. 2007 mit dem Abdrängen eines Teiles der Phryger in Folge des Eindringens der Galater. Dagegen lässt Coşkun 2014d offen, ob der Ursprung eher in Gordion oder in Pontos zu suchen ist. Unabhängig davon ist die Inbesitznahme des Landes östlich des Halys und damit auch Tavions durch die Trokmer wohl erst um 100 v.Chr. zu datieren (s. u. Fn. 43). Vgl. auch die Diskussion zu den Latène-Fibeln in Kleinasien, welche aufgrund ihrer Zeitstellung, aber auch angesichts ihrer Fundorte außerhalb Kerngalatiens sowie zudem auch wegen der Beleglücke für das 3. Jh. v.Chr. nicht etwa einen fortgesetzten ökonomischen Austausch der Galater mit den Kelten Europas belegen, sondern vielmehr wiederkehrende Rekrutierungen keltischer Söldner von Übersee durch hellenistische Könige. Vgl. Strobel 1996, 184-186; 2002a, 22; 2007a, 357; Coşkun 2011b, 100f.; 2014d.

profitiert. Im letzten Jahrzehnt ist, beginnend mit Kurt Tomaschitz hervorragender Quellensammlung zur Migration der Kelten, eine Reihe von Untersuchungen zu den Bewegungen und Siedlungen der Kelten im Balkan- und Donauraum unter besonderer Berücksichtigung des Königreichs Tylis erschienen.[41]

Vielfältige historische Neubewertungen einschließlich einer weitreichenden Revision der historischen Geographie schlägt – zumindest teilweise auch auf der Grundlage eines differenzierteren Keltenbildes – Coşkun vor: Statt Kooperation unter allen Galatern Zentralanatoliens oder ihrer Abhängigkeit von den Seleukiden seit dem sogenannten ‚Elefantensieg' (wohl eher ca. 275 als 268 v.Chr.) geht er von einer Reichsbildung der Tolistobogier über große Teile des nordwestlichen Kleinasien aus; eingedämmt wurde deren Herrschaft erst allmählich durch Attalos I und Antiochos III., wobei sie nicht einmal durch die Römer 189 v.Chr. dauerhaft gebrochen werden konnte.[42]

Das Königreich Pontos ist dagegen zunächst als Schutzmacht der Tektosagen zu begreifen; und die Ansiedlung der Trokmer im Gebiet östlich des Halys fand wohl nicht, wie bisher durchweg angenommen, im frühen 3. Jh., sondern erst unter der Protektion Mithradates VI. Eupator um 100 v.Chr. statt. Und nach Coşkun war es wohl derselbe König, der für vier ehemalige Stammesfürsten den Tetrarchentitel einführte. Damit wäre die stark rationalisierende Darstellung Strabons (12,5,1), welche einen keltischen Ursprung für insgesamt zwölf galatische Tetrarchien nahelegt, großenteils zu verwerfen, während dieselbe Version zuletzt in Strobel – in Anknüpfung an Theodor Mommsen – einen eifrigen Verfechter gefunden hat. Beide Ansätze setzen sich wiederum von den im 20. Jh. überwiegenden Positionen ab, welche jene Staatsordnung in Anknüpfung an Arthur Zwintscher als ein frühhellenistisches (zumeist seleukidisches) Oktroi betrachten oder es – wie etwa Mitchell – ohne weitere Erklärung als eine Mischung keltischer und hellenistischer Traditionen verstehen.[43]

Eine ähnlich tiefgreifende Neubewertung hat auch die Herrschaft des Tolistobogiers Deiotaros Philorhomaios erfahren (ca. 120-41/40 v.Chr.): Seine große Achtung in Rom, sein politisches Talent und sein historischer Erfolg sind schwerlich mit seiner Charakterisierung als Opportunist oder blutrünstigem Barbar zu erklären.[44] Auch die Herrschaft des letzten Königs von Galatiens, Amyntas, ist nun viel besser bekannt.[45]

[41] Tomaschitz 2002; Falileyev 2005; Campbell, PhD 2009; Vagalinski 2010.

[42] Coşkun 2011b; 2012a; 2014c; Coşkun/Engels/Erickson 2014. Abweichend z.B. Strobel 1996, zum Teil im Einklang mit Wörrle 1975 zum sog. ‚Elefantensieg'.

[43] Coşkun, Habil. 2007; 2011a; 2013d; 2014a, wobei er seinen früheren Vorschlag (2004), die Einführung der Tetrarchie auf Pompeius zurückzuführen, verworfen hat. Keltischer Ursprung: Mommsen 1884/1908; Birkhan 1997, 141; Strobel 2002a, 235f.; 273-278; 2007a, 390-395. Hellenistisch: Zwintscher 1892, 3f. Mischform: Mitchell 1993, I 27; Mitchell/Darbyshire/Vardar 2000, 81f.

[44] Saddington 1993; Syme 1995; Coşkun 2005; Habil. 2007; 2008a.

[45] Mitchell 1994; Coşkun 2008a; APR s.v. ‚Amyntas'; GTHW s.v. Tolistobogii.

Geschichte der Provincia Galatia

Einschneidende Änderungen für das Gesamtbild der Geschichte der römischen Provinz Galatien wurden bereits angesprochen. Hervorgehoben sei hier nochmals die Präzisierung der Chronologie der Priesterlisten auf der linken Ante des Ankyraner Sebasteions: Entgegen der früheren Ansicht wurde der erste nachgewiesene Sebastos-Priester nicht um 19 n.Chr., sondern bereits 5/4 v.Chr. eingesetzt sowie das Grundstück, auf dem noch heute der Augustus-Tempel steht, im Jahr 2/1 v.Chr. zwecks Errichtung des Sebasteions gestiftet. Dies hat viele wichtige Implikationen für die Kult-, Stadt- und Provinzgeschichte, so zum Beispiel, dass die Inschrift nun tatsächlich als Dokumentation des Kultes von Anfang an betrachtet werden kann. Mithin wurde er nicht schon unter dem ersten Statthalter M. Lollius 25/21 v.Chr., sondern erst zwanzig Jahre nach der Übernahme der Herrschaft durch die Römer gestiftet. Weitere tiefgreifende Konsequenzen ergeben sich für die Prosopographie sowohl der galatischen Aristokraten als auch für die Statthalter in augusteischer und tiberischer Zeit.[46]

Zur Kultgeschichte der Provinz ist auch auf einige weitere Arbeiten zum Kaiserkult hinzuweisen. So könnte die zunächst nach drei Teilstämmen organisierte Kultgemeinschaft etwa neues Licht auf die Frühgeschichte der Stadtwerdung Ankyras werfen, wenn man die Parallelen zu den kleinasiatischen Tempelstaaten stärker hervorhebt.[47] Im Übrigen glauben nun immer mehr Forscher, einen engeren Zusammenhang zwischen der von Paulus thematisierten Bedrohung der frühchristlichen Gemeinde Galatiens und dem Kaiserkult zu erkennen.[48] Daneben häufen sich aber auch Untersuchungen zu den traditionellen Kulten vor allem für Kybele Agdistis und Attis sowie daneben auch für Men. In diesem Zusammenhang hat auch die Frage nach Einflüssen des phrygisch-anatolischen Erbes auf die Kelten sowie umgekehrt nach Spuren keltischer Religionspraxis, allem voran Hinweise auf Menschenopfer im anthropologischen Befund des 2. Jhs. v.Chr., Berücksichtigung gefunden.[49] Des Weiteren ist auf zahlreiche neue, teils aber noch isoliert voneinander durchgeführten

[46] Mitchell/French, I.Ankara I S. 29 Fn. 3 verweisen hierfür auf Coşkun, Habil. 2007; vgl. nun vor allem Coşkun 2013; daneben 2009a; 2009b; 2012b. – Die traditionelle Datierung der Priesterliste wurde dagegen gleichzeitig von Mitchell 1986 und Halfmann 1986 grundgelegt; zur Annahme des Kultbeginns schon im Kontext der Provinzgründung vgl. etwa noch Mitchell 2007a. Stark revisionsbedürftig sind nun auch die Statthalterfasten von Sherk 1979; 1980; Rémy 1989, im übrigen auch für das spätere 1. Jh. n.Chr., vgl. Adak/Wilson 2012; Eck 2013. – Zur römischen Verwaltung in Pisidien vgl. jetzt auch die Detailstudien zum staatlichen Transport- und Kommunikationswesen auf der Grundlage der Sagalassos-Inschrift (SEG XXVI, 1392): Lemcke 2012; Lemcke/Coşkun 2013.

[47] So Coşkun 2009a, 179 mit Blick auf den numismatischen Befund; Rowe 2012, 3 unter Verweis auf Mitchell/French, I. Ankara I 2: „Augustan Ankara thus emerges as a sort of temple state, in which the sons of the Galatian dynasts have become priests of the imperial cult, and the priests sponsor separate spectacles and distributions at Ankara, Pessinus, and [Ta]vium"; ausführlicher Coşkun 2013a. – Zu weiteren Aspekten der Kultgeschichte vgl. Burrell 2004; Strubbe 2006; Mitchell 2007; 2008a; 2008b; Coşkun 2013e; 2014b.

[48] Hardin 2008; Kahl 2010, z.B. gegenüber Elliott 2003. Zum frühen Christentum s. zudem die Verweise auf Mitchells Arbeiten o. in Fn. 13.

[49] Kybele und Attis: Roller 1999; 2009; Lancellotti 2002; Elliott 2003; Borgeaud 2004; Hirschmann 2005. – Men: Mitchell 2007, 161f.; Labarre 2009. – Kelten und phrygische Kulte: Strobel 2002a (s. o. Fn. 21); Hofeneder 2004; auch 2005-2011; Coşkun 2009. – Menschenopfer in Gordion und Kaman-Kalehöyük (Provinz Kırşehir): Strobel 2002c; Voigt 2003; Matsumura 2011.

Untersuchungen zu den römischen Heeresstationierungen und Koloniegründungen hinzuweisen,[50] daneben auch auf Studien zu Galatern im römischen Militärdienst besonders auch außerhalb der Provinz, wobei hier nicht nur die *legio XXII Deiotariana*, sondern auch die *legio III Cyrenaica* Hervorhebung verdienen.[51] Außerdem haben sich unsere Kenntnisse von den Personen- und Ortsnamen der Galater[52] sowie zur historische Geographie Zentralanatoliens[53] erheblich erweitert. Damit einher geht auch eine Vielzahl verbesserter (teils online zugänglicher) Karten.[54] Die Frage der ethnischen Identität der hellenisierten galatischen Aristokraten, die in der Kaiserzeit nur zögerlich römisches Bürgerrecht erhielten, ist noch nicht ausdiskutiert.[55]

Größere Überblicke über die Geschichte entweder der Galater oder aber den zentralanatolischen Raum blieben selten und haben jeweils einen ganz anderen Zuschnitt als Mitchells *Anatolia*. Abgesehen von den oben erwähnten rezenten Stadtgeschichten zu Pessinus und Ankyra kann man auf einige wenige Aufsatzdarstellungen[56] oder populärwissenschaftliche Bücher[57] verweisen. Besondere Hervorhebung verdienen das nützliche Studienbuch von Maurice Sartre sowie das vor allem wegen seiner Reichweite höchst beeindruckende Handbuch zur Geschichte Kleinasiens von der Steinzeit bis ins 3. Jh. n.Chr. aus der Feder Christian Mareks. Die größte Neuerung wird hier demnächst

[50] Mitchell 1994b; Syme 1995, 225-241; Strobel 2000; 2002b; Bennett 2006a; 2006c; 2007; 2011; Coşkun, Habil. 2007; Halfmann 2007; Valvo 2007; Esch 2008; Bru 2009; de Georgi 2011; Sweetman 2011; Kunnert 2012, 160-165. In einem größeren geographischen Kontext stehen Sartre 2001 und 2007; Salmeri/Raggi/Baroni 2004; Sugliano 2005; Filges 2011; Kadıoğlu/Görkay/Mitchell 2011, 57-68. Zu Antiochia s. auch o. Fn. 11.

[51] Ägypten: Daris 2000; Coşkun 2008b. Balkan: Mihăilescu-Bîrliba/Piftor 2005; weiterhin auch Petolescu 1978.

[52] Freeman 2001; Coşkun 2006; 2009c; 2011c; 2012c; 2013b; 2013e; 2013f; 2013g. – Vgl. auch die umfassenderen Werke zur keltischen Toponomastik: Isaac 2002; 2004; Sims-Williams 2006; 2008; Falileyev 2010. Bedauerlicher Weise stützen sich Rayboud/Sims-Williams 2007a; 2007b nur auf lateinische Inschriften. – Wichtig ist zudem Corsten, LGPN V A, 2010. LGPN V B-C für das binnenländische und südliche Kleinasien sind z.Z. in Bearbeitung. Vgl. ferner Mitchell 2007b zu persischen Namen in Pessinus.

[53] Ergänzend zu Mitchell 1993 sind vor allem heranzuziehen: Strobel 1994a, 29-65; 1997; 2007; Bennett 2006b; Vitale 2012. Vgl. auch Stückelberger/Graßhoff 2006. Weiteres u. in Fn. 54.

[54] Für antike Orte oder moderne Fundorte in Galatien vgl. z.B. Strobel 1999, 395f.; Mitchell, BA 63, 2000; Coşkun 2012c (mit Michael Grün und April Ross), Maps 3-6. Immer noch wichtig ist TIB, bes. Bde. IV und VII (Belke 1984; Belke/Mersich 1990). Zumindest für den Osten sehr lückenhaft sind dagegen die online zugänglichen Karten von Falileyev 2006/7 und Koch 2007; ähnliches gilt für Haywood 2001, 39; 41. – Alle früheren Straßenverlaufspläne sind nun durch French 2012, 15f.; 254-260 ersetzt. – Zahlreiche Karten und Skizzen zu Zentralanatolien, vor allem zur Siedlungsgeschichte der Galater, bietet Mitchell 1993 (seine Karte zum Süden der Provinz ist auch online über die Seite des *Pisidia Survey Project* zugänglich). Noch unveröffentlicht sind die teils stark abweichenden Skizzen zum 3. und 2. Jh. v.Chr. von Coşkun, Habil. 2007. – Grundlegend für die Verschiebung der Provinzgrenzen ist Rémy 1986. Optisch anspruchsvoller sind die Karten von Marek 2010, zwischen S. 480 und 481. Je eine kondensierte Einzelkarte zur Entwicklung der Territorien des Deiotaros (ca. 100-40 v.Chr.) und der Provinzgrenzen Galatiens vom 1. Jh. v. bis 2. Jh. n.Chr. bietet Coşkun 2008a, Karten 3-4 = 2012, Maps 1-2. In Vorbereitung befindet sich zudem der *Atlas historique et archéologique de l'Asie Mineure antique* unter der Leitung von Hadrien Bru und Guy Labarre. Mustafa Adak und Altay Coşkun planen überdies ein Gemeinschaftsprojekt zur genaueren Erforschung der (sich fast kontinuierlich verschiebenden) Provinzgrenzen Kleinasiens, dessen Ergebnisse voraussichtlich in Kooperation mit dem Projekt *Adaptiver, Interaktiver Dynamischer Atlas* (Max Weber Kolleg, Erfurt) visualisiert werden.

[55] Strobel 2002; 2007 (hierzu aber Fittschen 2001; Coşkun, APR s.v. ‚Adobogiona – Nachtrag' [2010]); sowie Coşkun 2009a; 2012c; 2013e. Anzuführen ist hier auch ein Beitrag zur Bedeutung von Gladiatorenspielen in Ankyra: Bennett 2009a.

[56] Z.B. Mitchell 1999; Mitchell/Darbyshire/Vardar 2000; Eck 2007.

[57] Cross/Leiser 2000; Mu. Arslan 2000.

wohl die seit längerer Zeit ausstehende Fortsetzung der Geschichte der Galater aus der Feder Strobel sein.[58]

EPIGRAPHISCHE UND NUMISMATISCHE CORPORA

Viele der hier erwähnten Fortschritte sind erst durch die in jüngster Zeit wesentlich verbesserte Quellendokumentation möglich geworden. Nachdem weiter oben die wichtigsten archäologischen Befunde vorgestellt worden sind, sollen hier nochmals zusammenfassend die sich seit etwa einem Jahrzehnt geradezu überschlagenden epigraphischen und numismatischen Corpus-Publikationen aufgeführt werden. So legte David French 2003 eine zweisprachige Auswahl aus den Inschriften von Ankara vor;[59] Arslan stellte 2004 einen ausgezeichneten monographischen Katalog der Münzen dieser Stadt zusammen und ließ wenig später eine Zusammenstellung der Münzen von Pessinus und Tavion folgen;[60] ein Corpus der Inschriften von Pessinus verdanken wir Johan Strubbe (2005), dasjenige des Museums von Yozgat jüngst Christof Wallner (2011).[61]

Auch die an Kerngalatien angrenzenden Gebiete, die wenigstens zeitweise Teil der Großprovinz Galatia gewesen waren, haben an dieser dynamischen Entwicklung Anteil, wie die vor kurzem erschienenen Corpora zu Ostphrygien, Lykaonien und Paphlagonien belegen.[62] Gesonderte Erwähnung verdient auch die wachsende Zahl der online zugänglichen epigraphischen Publikationen und Datenbanken, darunter z.B. die *Epigraphische Datenbank zum Antiken Kleinasien* von Helmut Halfmann (2009/11) oder brandaktuell die Gesamtausgabe der römischen Meilensteine Galatiens durch French (2012).[63] Zweisprachige, kommentierte Ausgaben der literarischen Quellen zu wichtigen Teilaspekten der keltischen Geschichte unter Berücksichtigung Galatiens haben Kurt Tomschitz (2002) und Andreas Hofeneder (2005-2011) vorgelegt.[64]

Der letzte Höhepunkt in der Erforschung Galatiens ist freilich mit dem Erscheinen des monumentalen ersten Bandes der *Inscriptions of Ankara* von Mitchell und French

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[58] Sartre 1995. Marek 2010. Vgl. auch Schwertheim 1994; Mitchell 1999; Mitchell/Darbyshire/Vardar 2000; Eck 2007. Vgl. jetzt auch Vitale 2012.

[59] French 2003. Zum größeren Teil handelt es sich in Drew-Bear/Thomas/Yıldızturan 1999 um mit griechischen Inschriften versehene Monumente aus dem *Museum of Anatolian Civilizations* in Ankara.

[60] Me. Arslan 2004; 2006. – Zur galatischen Numismatik vgl. zudem Strobel 2004; Coşkun 2009a.

[61] Strubbe, I.Pessinus = IK 66, 2005; Wallner, I.Yozgat, 2011. Karl Strobel hat ein viele hundert (weit überwiegend spätantike) Titel zählendes Inschriftencorpus von Tavion angekündigt.

[62] Horsley/Mitchell, I.Central Pisidia = IK 57, 2000; McLean, RECAM IV, 2002 (cf. hierzu aber Probst 2007); Jonnes, I.Sultan Dağı I, IK 62, 2002; Horsley, RECAM V, 2007; Laflı/Christof/Metcalf, I.Hadrianopolis I, 2012 (zum Tempel von Hadrianopolis vgl. auch Laflı/Christof 2005). Crowther/Thonemann, MAMA XI, 2012. – In Vorbereitung befindet sich zudem ein Corpus der Inschriften von Pompeiopolis, vgl. die Projektseite sowie Summerer 2011. Zu den rezenten Neuerscheinungen zu Lycia-Pamphylia vgl. die Bibliographie von Adak/Wilson 2012.

[63] In Vorbereitung: befinden sich *Epigraphical Squeeze Collection* (BIAA); *Datenbank der griechischen und lateinischen Quellen von Kleinasien* (Christian Marek); Mitchell/Coşkun, RECAM II^2 (vgl. Mitchell, RECAM II, 1. Aufl. 1982).

[64] Tomaschitz 2002 zu den Wanderungen der Kelten; Hofeneder 2005/2008/2011 zur Religionsgeschichte. Vgl. zudem Strubbe 2005 zu Pessinus (weiteres hierzu o. in Fn. 23), während Mitchell-French, I.Ankara II demnächst Bosch 1967 ersetzen wird.

erreicht (2012): 315 Titel sind zum Teil mit detaillierten Einleitungen und Kommentaren versehen; der in Vorbereitung befindliche zweite Teil für die Spätantike wird ähnlich umfangreich sein.[65] Dabei stellt das Monumentum Ancyranum der *Res Gestae Divi Augusti* den umfassendsten Einzeltitel dar (I.Ankara I 1, S. 66-138) und ergänzt durch die minutiöse epigraphische Erfassung des Textes die herausragenden historisch-philologischen Kommentare der Editionen von John Scheid (2007) und Alison Cooley (2009).[66] Die Behandlung der schon mehrfach erwähnten Priesterlisten des Sebasteions umfasst über 12 Seiten (138-150). die übrigen Titel erhalten im Durchschnitt etwas mehr als je eine großformatige Seite.

AUSBLICK

In erstaunlich kurzer Zeit ist also nicht nur die Quellendokumentation auf eine ganz neue Grundlage gestellt worden, sondern es sind auch zahlreiche Ansätze zu tiefgreifenden historischen Neubewertungen gegeben worden. Kontroverse oder auch durch rezente Erkenntnisse wieder offene Fragen sind für alle Epochen der galatischen Geschichte seit Beginn ihrer Wanderungen reichlich vorhanden. Jedoch ist abzusehen, dass die noch ausstehenden Inschriftenpublikationen besonders für Ankyra (Bd. II) und Tavion das Augenmerk der historischen Forschung wieder weit stärker auf die spätantik-byzantinische Zeit lenken werden. Ausgangspunkt für die hierdurch angeregten Arbeiten wird aber wiederum Mitchells *Anatolia* sein, dessen zweiter Band (*The Rise of the Church*) ein weiterhin starkes Fundament dafür bildet.[67]

VOLLSTÄNDIGES VERZEICHNIS DER ZITIERTEN LITERATUR

Die hier vorgelegte Bibliographie stellt keinen Anspruch auf Vollständigkeit und ist insbesondere für vor 1993 erschienene Publikationen sehr selektiv. Beiträge z.B. aus AST, EA oder KST sind in der Regel nicht zitiert, wenn ihre Inhalte in späteren Veröffentlichungen weiter ausgearbeitet wurden. Eine Zusammenstellung der zitierten Projektseiten und Datenbanken im Internet findet sich im Anschluss an die Bibliographie. Alle zitierten Internet-Links wurden zuletzt in der Zeit vom 27.9. bis 4.10.2012 eingesehen.

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[65] Mitchell/French 2012 = I.Ankara I. Bd. II wird ca. 200 Titel aus spätrömischer und byzantinischer Zeit sowie zahlreiche weitere außerhalb der Stadt gefundene Inschriften mit Bezug zu Ankyra enthalten (p. VIII). Kaum ein halbes Jahr nach Erscheinen des Bandes liegen bereits zwei Rezensionen vor: Gregory Rowe, BMCR 2012.09.47; Renate Lafer, H-Soz-u-Kult, 01.10.2012. – Für die Vorarbeiten der Herausgeber sei bes. auf Mitchell 1977; 2008b; French 2003 verwiesen.

[66] John 2007; Cooley 2009. Vgl. jetzt auch den Sensationsfund eines Fragmentes des *Res Gestae* in Sardeis (I.Sardis VII.1, 201): Thonemann 2012.

[67] Zusammenfassend informiert über zahlreiche laufende Projekte die am Ende der Bibliographie zusammengestellte Liste von Projektseiten im Internet. Weitere Verweise sind vor allem o. in Fn. 52, 54, 61-65 gesammelt. Ferner erwähnt sei die von Oleg Gabelko angekündigte Tagung *The Celts and the Classical World: from Ireland to Asia Minor*, Moskau März 2013. Angekündigt sei zudem das Promotionsprojekt von Lukas Lemcke zur spätantiken Verwaltung der kleinasiatischen Provinzen (ab Herbst 2013).

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SATU QALA: A PRELIMINARY REPORT ON THE SEASONS 2010-2011

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Abstract

This article presents the first results of excavations at Tell Satu Qala, ancient Idu, in the Kurdish Region of Iraq. It gives an account of the two excavation seasons that have taken place in 2010 and 2011. The preparations that led to the excavation, the reasons for selecting this tell, and people instrumental in starting this project are mentioned in sections 1-2. In the next section the archaeological evidence is discussed, both the squares on the north side of the tell and the cross-section made on the southern slope (3). This is followed by an overview of the inscriptions from Satu Qala, on finds from the present excavation as well as museum objects (section 4). The material is arranged chronologically, and an image of every inscription is added. The article is concluded by two sections on the history of Idu, the first treating the interval between the Middle Assyrian and the Neo-Assyrian empires (5), and the second presenting the historical evidence for the Old Babylonian period (6).

1. INTRODUCTION (W.H. VAN SOLDT AND C. PAPPI)

The first contacts leading to the excavations at Satu Qala started in 2005 when the ambassador of Iraq to the Netherlands, H.E. Siamand Banaa, invited W.H. van Soldt to engage in archaeological research in the Kurdish Region of Iraq. In April 2006, W.H. van Soldt, D.J.W. Meijer, and K.M. Ahmed visited Erbil and contacted the Ministry of Culture, Salahaddin University, and the Directorate General of Antiquities in Kurdistan. A Memorandum of Understanding between both universities was drawn up that specified future projects, such as the exchange of students and teachers and the intention to start an archaeological excavation in the Kurdish Region. In May and June 2008, W.H. van Soldt, D.J.W. Meijer, K.M. Ahmed, and G. Wilmink visited a number of sites in the area between Erbil and Suleimaniya and to the east of Suleimaniya, in particular in the Raniya and Shahrazur plains. It was decided to concentrate on sites which showed occupation during the late third millennium BC and/or during the second millennium BC. Eighteen sites were visited during this survey, some of which proved suitable for our purposes. The survey showed the richness of archaeological sites in the Kurdish Region and its potential. The region had seldom been subject to research in the years prior to 2003. Furthermore, archaeological research was centered in Baghdad, and no local universities had been active in archaeological research in the Kurdish Region.

One of the first sites that we visited was Tell Satu Qala on the Lower Zab, east of Taqtaq and south of Koya (fig. 1). It is located in the province of Erbil. The tell is still inhabited and the houses cover more than half of its surface. Many houses have also been built at the bottom of the tell, a situation that may reflect the ancient settlement patterns. During our inspection of the tell, a resident, Mr. Abdulkhaliq Abdullah Muhammed,

approached us and presented several bricks that he had found in the top soil. On these bricks, an inscription was written in Middle Assyrian script and language which mentioned not only the name of the town, but also the name of its king. It explicitly stated that the brick was part of a palace wall. It was clear from the data obtained from the survey that Tell Satu Qala was the most promising site (fig. 2). It was in the chronological range that we had been looking for (Early through Late Bronze) and it had the obvious advantage that both the name of the town and its king were known. Moreover, the person who showed us the bricks also remembered where he had found them, suggesting that the palace from which they had fallen could not be far away. It was therefore decided to concentrate on this site and to start excavations in the spring of 2010.[1]

In 2009 a grant was secured from the Netherlands Organisation for Scientific Research (NWO), which made it possible to plan two seasons at the site and to visit the museum in Erbil to study the artifacts that had been recovered during the excavation. In the same year contact was made with the Institute of Ancient Near Eastern Studies of the University of Leipzig, and C. Pappi and C. Hess were invited to join the excavation team, in which the universities of Leiden and Leipzig, and Salahaddin University (Erbil) cooperate as equal partners. C. Pappi and M.P. Streck received a grant from the Fritz Thyssen Foundation and extra funding from the Faculty of History, Art and Oriental Studies of the University of Leipzig. In April 2010 a team consisting of W.H. van Soldt (general director), D.J.W. Meijer (field director), K.M. Ahmed (Leiden University), C. Pappi, and C.W. Hess (University of Leipzig) arrived in Erbil, followed later by V. Klinkenberg (Leiden University) and A. Wossink (University of Chicago). In Erbil we were joined by Dr. Ahmed M. Mirza and Dlshad Marf of Salahaddin University who had done much of the organisational work for the excavation. N. Azez and H. Koya were present as representatives of the Directorate General of Antiquities. In September 2011 a team consisting of W.H. van Soldt, S. Kluitenberg, K.M. Ahmed, V. Klinkenberg, C. Pappi (field director), C.W. Hess, M. Siebert (University of Leipzig) and A. Wossink (field director, University of Chicago) carried out the second season at Satu Qala. M. Makinson, pottery specialist, joined the team in Erbil. Groups of student assistants of the Salahaddin University in Erbil worked on the tell during both seasons. N. Azez and H. Koya were again present as representatives of the Directorate General of Antiquities.

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[1] See van Soldt 2008.

have gone out of their way to make our stay and our work in Kurdistan as easy as possible. We owe special thanks to Mrs. Gouhar Shemdin, Heritage Advisor of the Ministry of Tourism and Antiquities for her kind help. We would also like to thank Mr. Mala Awat, general director of the Antiquities Service for Kurdistan; Mr. Haydar Hassan Hussein, general director of the Antiquities Service for the province of Erbil; Mr. Nawzad Hadi, governor of the Erbil province; Mr. Akrawi, Minister of Municipalities and Tourism; Mr. Chapuk Umer Mustafa, governor of Koya; Dr. Jawad Faqé, Vice-Rector of Koya University; Mr. Sadi Pira; and the municipality of Taqtaq, especially Mr. Khan Nasraddin and Mr. Fatih Hussein, who kindly offered the municipal guest house as lodgings for the excavation team and provided enthusiastic support for our continued work.

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3. DESCRIPTION OF THE SITE (C. PAPPI AND A. WOSSINK)

Satu Qala is a tell located on the northern bank of the Lower Zab in a fertile hilly country irrigated by seasonal tributaries of the Lower Zab. The annual rainfall is well above the 200 mm isohyet needed for dry farming agriculture. The site is situated about 40 km downstream from the Dukan Lake, near the modern cities of Taqtaq and Koya (fig. 3).

The Main Mound

The main mound measures 170 by 100 m and rises approximately 10 m above the surrounding plain (figs. 2 and 3).

The north, east and south flanks are relatively steep. In the case of the south slope this can be attributed to erosive activity of the Lower Zab, a side branch of which runs immediately at the foot of the tell. The steep northern slope may have resulted from digging activities by villagers who used the soil to make mudbricks. The greater part of the main tell is occupied by houses. A small mosque is located on the northern edge. A large compound consisting of a number of houses built against each other covers the southern edge of the top of the mound.

The Lower Town

The site is located on the right bank of the Lower Zab. It sits on top of an alluvial gravel bed that in the past has been cut by the river. It is likely that as a result of this, a significant part of the tell has disappeared, as indicated by the extremely steep southeastern slope.

The main tell measures 170 m by 120 m and is approximately 10 m high. Inspection of CORONA and SPOT satellite imagery revealed the presence of a landscape feature surrounding the main tell that might be tentatively interpreted as the outline of a lower town. However, this hypothesis has yet to be tested. The village of Satu Qala was originally confined to the main tell itself, but has recently started to expand outward in all directions except the southeast. Comparison of a CORONA image from 1968 with a SPOT image from 2003 shows that this expansion is a post-1960s development. Since 2003, the village has expanded even further and now covers almost the entire area of the hypothesized lower town.

Microenvironment of Satu Qala

Satu Qala is located approximately 70 km southeast of Erbil and 50 km northeast of Kirkuk. The valley in which the site is located is relatively flat and drained in part by a wadi running west of the site. The site sits on the right bank of the Lower Zab between the towns of Dukan and Taqtaq (fig. 1). This area is characterized by mountain ranges of up to 1000 m high. Toward the east, the mountains progressively rise up to 1500 m near Dukan, after which they sink toward the Raniya Plain. West of Satu Qala, the mountains gradually decrease in height and eventually open up toward the Assyrian plain. While the discharge of the Lower Zab is today controlled by the Dukan Dam upstream from Satu Qala, the river had a much more vigorous flow regime in the past, as is evident both in the landscape and in historical documents from the medieval period which describe the Zab as *majnun*, or 'demonically possessed' (Bosworth 2011). The Lower Zab receives its water from snowmelt and rainfall, resulting in a peak water volume in the months February-May while July to October is the period of low water. Measurements taken since 1925 put the maximum discharge of the Lower Zab at 3420 m^3/s (Fink and Ostrizhnov 1983: 519).

British maps indicate that in the nineteenth and early twentieth century, the wider area of Satu Qala seems to have been the terminus for riverine transport with *keleks* during low water in the Zab, which may have played a role in the decision to settle there. However, during high water, the river was navigable as far upstream as the Raniya Plain.

The valley of Satu Qala has experienced considerable construction activity over the past decades, with speed seemingly picking up over the last years. The recently increased building activity around Satu Qala and the other villages in the microregion are not the only threats to the archaeological heritage of the area. The Kurdistan Regional Government has plans to build a hydroelectric dam immediately upstream from Taqtaq, one of many dams that have been proposed to secure the electricity supply and manage water resources. The reservoir of the Taqtaq Dam would flood the entire valley from Taqtaq up to Dukan, including the microregion of Satu Qala. However, the progress of this project is presently unclear.

Topography and Excavated Areas (Fig. 3)

A 10 by 10 m grid was superimposed over the main tell. The grid was based on an arbitrarily chosen point on the western slope of the tell (N 35° 52' 27,91", E 44° 41' 46,21") that was assigned coordinates 1000/700. The altitude of that point was set at an arbitrary 100 m, since no national topographic data were available at the time.

Initially, during the first season in May 2010, three operations (A-B-C) were opened respectively on the west, northeast and east slopes of the main tell. Operation A, located immediately west of the mosque, consisting of square 1010/680 and the south half of 1010/690, was chosen according to the find-spot of sporadic inscriptions. Operation B, consisting of square 1080/700 and the southern half of 1080/710, located on the steep northeast slope, and Operation C, consisting of square 1090/680, located on the eastern slope, were chosen based on accessibility and on the need to gain insight into the occupation history of the site.

In September 2011 fieldwork in operation B continued. Operation A was enlarged to the south-east in squares 1020/670 and 1020/680 in order to gain better insight into the archaeological features already encountered. Fieldwork in square 1010/680 continued. Operation D, located on the steep southern slope of the main mound, was opened at the end of the second season to explore the earliest occupational phases of the site. Fieldwork in square 1010/680 of operation A and in operation C was not continued.

Operation A

The fieldwork in the northwestern slope of the mound's summit during the first two seasons was aimed to explore the sequence of occupational phases of the site. In 2010 excavations were carried out in the southern half of square 1010/690 by N. Aziz and in square 1010/680 by D.A. Marf, both under the supervision of D.J.W. Meijer. In 2011, fieldwork in square 1010/680 continued by M. Siebert with the help of N. Khana Rahim. The operation was enlarged in the southern half of square 1020/680 and in square 1020/670 under the supervision respectively of C. Pappi and A. Wossink.

Square 1010/690

In square 1010/690 the surface sloped heavily down, revealing a thick deposit of disturbed clayish layers (L. 2001-2002) with a mixture of fragmentary bricks, stones and modern refuse, such as plastic and textiles. It consisted mainly of deposits resulting from the construction and use of the adjacent mosque. This soil contained a mixture of finds without much context that made dating the remains extremely difficult. Among them, at varying depths, a large number of fragments of bricks (SQ 10-4; SQ 10-7; SQ 10-8; SQ 10-9; SQ 10-15; SQ 10-16; SQ 10-30; SQ 10-31; SQ 10-32; SQ 10-33; SQ 10-34; SQ 10-35; SQ 10-36; SQ 10-37) bearing cuneiform inscriptions came to light. Besides these materials, glazed brick fragments (SQ 10-6 and SQ 10-10; SQ 10-11; SQ 10-13; SQ 10-46; SQ 10-47), reused in a fragmentary recent structure (L. 2004), were also found here.

The glazed tile SQ 10-6 (fig. 4) is only partly preserved. It is glazed in white and yellow on a green-blue background, depicting a striding horse crowned with a semi-circular headstall and led by a halter by a bearded man wearing a fringed short robe.

The second glazed brick, SQ 10-10^{+} (fig. 5), is composed of four joining fragments (SQ 10-10+SQ 10-14+SQ 10-45+SQ 10-46) but is almost complete. It is glazed with the same colors as the previous one, featuring a bearded, striding male human-headed and winged lion, a sphinx, wearing a feathered conic *polos*.

On both objects there are two lines of the same possession inscription written in two bands above and beneath the pictures.[2] Comparable glazed tiles, with similar colors and similar subject, were found in the temple of Anu-Adad in Assur and can be dated to the reign of Tukultī-Ninurta II (891-884 BC).[3] The headstall of the horse and the posture of the figures confirm this dating. The semicircular headstall of the horse, according to Madhloom, finds parallels in the one worn by horses dating to the ninth century during the reign of Aššurnaṣirpal II.[4] Furthermore, the striding position and the shape of the feather cap of the sphinx is similar to one representation of a *lamassu* dating to Tiglatpileser III. This shape seems to be unattested in the second millennium BC.[5]

To the other finds related to this level (L. 2009) belongs an almost complete nipple beaker with a smoothed nipple base, a globular body and an everted rim (SQ 10-28, fig. 6). The shape is attested from the Middle to the Late Neo-Assyrian Periods.[6] We can also note a Late Neo-Assyrian carinated bowl with a flat base[7] (SQ 10-29, fig. 7).

In the earliest encountered level of this square, three incomplete skeletons, without noticeable burial pits, came to light (SQ 2001.401; SQ 2003.401; SQ 2006.401). All lay on their right sides, oriented north-south, in a crouched position, without any burial gifts. Unfortunately a precise dating for these features cannot be proposed.

Square 1010/680

This square is representative for the stratigraphy of the site, although further insights about the encountered archaeological features are expected in coming seasons through the extension of fieldwork in the adjacent squares 1020/670 and 1020/680. As in 1010/690, the topsoil proved to be rather disturbed.

The most recent phase was represented by a number of recent pits used as grain *silos*, some of them still containing small quantities of chaff.

After the very disturbed soil had been removed, a wall alignment (L. 1009) consisting of two parallel lines of bricks, running northeast-southwest, and a perpendicular side wall,

[2] See section 4, Ba'auri.

[3] Andrae 1923, pl. VII.

[4] Madhloom 1970, pl. VIII.

[5] Layard 1853, pl. 95. Cf. Madhloom 1970, pl. LVVIII.

[6] In the Middle Assyrian period it occurs in Kār Tukultī-Ninurta, in Giricano Höyük, in Tell Taban and Tell Sabi Abyad (Duistermaat 2008, 279), and in Assur in the Late Neo-Assyrian Period (Hausleiter 2010, 303).

[7] Type ST 4.7, cf. Hausleiter 2010, 286 and pl. 65.

running into the southern section, both belonging probably to a domestic structure (Building 1) with at least two rooms, was encountered (fig. 8). The pottery materials found in this occupational phase are mixed. Notable among the small finds are a loom-weight (SQ 1009.301) and a clay model of a bed (SQ 10-5, fig. 9), both probably reused, kneaded into the clay of the mudbricks. Clay models of beds are mostly attested at the end of the third and at the beginning of the second millennium BC, but continue to be used in both cultic and domestic contexts until the Parthian Period.[8] SQ 10-5 finds a parallel in an object found at Yorghan-Tepe, unfortunately not belonging to a stratified context,[9] but typologically similar to the ones dating to the earlier periods.

Immediately under that level a fragmentary baked bricks floor (L. 1018, fig. 10) attests an earlier occupational phase.

Under this level, the square yielded a group of 7 burials (SQ 1017.401; SQ 1017.402; SQ 1017.403; SQ 1028.401; SQ 1028.402; SQ 1028.403; SQ 1045.401), sometimes poorly preserved. Disturbances of the stratigraphy and the lack of grave goods preclude an exact dating. Nonetheless, the crouched position of the skeletons and a non-homogeneous orientation reveals most probably a Pre-Islamic context.

The last occupational phase of this area, exposed in 2010 and completely excavated at the beginning of season 2011, consisted of remains of a stone footing of a massive structure (L. 1040, fig. 11), a 3 meter-wide wall, running northeast-southwest and forming a corner with a perpendicular structure in proximity with the south section. This is related to a badly preserved treading floor (L. 1075) covered by a thin layer of ash (L. 1074). The elevation of this massive wall was not preserved. It was probably dismantled and leveled already in antiquity. Its footing was built of reused materials, i.e. boulders, smaller stones and baked bricks, some of them with 3 incised lines (L. 1041, fig. 11) and some of them bearing cuneiform inscriptions (SQ 11-T4; SQ 11 T7; SQ 11-T8; SQ 11-T9).

The massive structure L. 1040 sealed the earliest excavated phase of this area, consisting of three rooms belonging to 2 domestic structures (fig. 12): building 2, located in the eastern part of the square, consisting of two rooms, designated A and B, and building 3, located in the western part of the area. A door socket and a sill (L. 1064) located in the southeaster corner of the square reveal the doorway of Room A of Building 2. No pottery was found in the two rooms except for a globular storage jar, unfortunately non-diagnostic, found *in situ* in the northwestern corner of Room B. Building 3 consists of one badly preserved room, where three globular loom-weights were found (SQ 1074.301; SQ 1074.302; SQ 1074.303). Both domestic structures were related to a pebble floor (L. 1072; 1073), unfortunately greatly disturbed, in which was embedded a drain (L. 1071), covered by baked bricks and stones, running northeast-southwest under the northern wall of room B of building 2 towards building 3 (fig. 12).

For most of the structures only the stone footing is preserved, while several rows of bricks have been preserved in the northern wall of room B. The entire structure shows

[8] Cholidis 1992, 172-183.

[9] Starr 1937-39, pl. 57 T. Cf. Cholidis 1992, no. 35.

evidence of several restorations. Fragments of baked bricks, two of them T-shaped (SQ 1047.303; SQ 1047.304+305, fig. 13), were reused in the masonry of the northern wall of room B of building 2. They are glazed in blue and yellow, reminiscent of the same style and colors of the ones described above (SQ 10-6 and SQ 10-10^{+}). Furthermore, in the southeast corner of the same building, a corner fragment of a painted wall peg had been used to restore the door impost of room A. The peg fragment is painted in black on a white background around the base of the broken nail, and bears a fragmentary circular inscription of Aššurnaṣirpal II (SQ 1064.301, fig. 14).[10] The wall peg shows many well-known Assyrian decorative patterns, e.g. the black and white palmette in the corners, the black and white pomegranates on the sides, and the geometrical decorative band on the edge of the object consisting of black and white zig-zag parallel lines on a pale yellow background.[11] Though these motifs are all separately well attested in the figurative repertoire of wall pegs belonging to the palace of Aššurnaṣirpal II in Assur, the combination of these three motifs is not attested in the Assyrian capital and could indicate an original product of local production.

In different deposition layers, most probably aimed to level or restore the pebble floor (L. 1072), were found a number of materials reminiscent of an official Assyrian context, i.e. a few fragmentary inscribed bricks (SQ 11-T12 and SQ 11-T13), a cylinder seal (SQ 1066.305) and a lot of pottery mostly dating to the Late Assyrian Period, including a fragmentary petalled *thymiaterion* (SQ 1066.301; SQ 1066.304) and a globular perforated goblet with conic base (SQ 1056.301).

The cylinder seal (SQ 1066.305, fig. 15), made of serpentine, shows a combat scene depicting a crouching bearded hero wearing a fringed garment armed with quiver and drawn bow facing a striding griffon. The scene is framed above and below by two decorated bands with geometrical patterns, reproducing the same decorative motifs of the wall peg (SQ 1064.301, fig. 14). The background is filled by different symbols, i.e. the palmette-motif occurring on the above mentioned wall peg, the morning star, symbol of Ištar, the lunar crescent, symbol of the Moon-god, the solar disc, symbol of the Sun-god and the rhomb, symbol of fertility. According to style, topic and material, this seal can be dated to the ninth century BC. Contemporary examples are known from the collections of the Assyrian capitals and the site of Hasanlu Tepe, located in West Iran south of the Urmia Lake.[12]

The partly preserved *thymiaterion* (1066.301+304, fig. 16) consists of a petalled cult bowl on a petalled high stand and is decorated with red painted bands. This type of cultic object, with or without a lid, was widely in use from the Late Bronze Age until the later periods in the Levant and in Mesopotamia, but the petalled ones occur especially in the archaeological record of the Levant in the Late Bronze Age and Early Iron Age. They

[10] Cf. inscription SQ 11-T14, for which see chapter 4, Aššurnaṣirpal.

[11] Nunn 2006, 23-50, cf. no. 30 and no. 62.

[12] Herbordt 1992, 84-85 and Marcus 1996, 44-45.

are attested as well in the iconographic repertoire of the Assyrian reliefs dating to the seventh century BC.[13]

The perforated globular goblet (SQ 1056.301, fig. 17) is also a shape typically found in the Late Assyrian Period in Assur and in the region east of the Tigris.[14] This fits with the preliminary analysis of the pottery, still in progress, which indicates that the materials belonging to this occupational phase are mostly dated to the Late or Post Assyrian Period.

Squares 1020/680 and 1020/670

Fieldwork in both squares was begun in 2011 as preparatory work for the next season in order to analyze the occupational sequence of the site and to complete the existing data provided by square 1010/680.

The most recent level appears in both squares and it consists of at least two modern floors with traces of burning cut by a big number of modern pits. In the topsoil of both squares were found two more fragments of inscribed bricks (SQ 11-T5; SQ 11-T3).

A further modern phase consisted of a big courtyard (L. 6033; 5049; 5050) with five circular pits with traces of ash and burnt material on the bottom, used as *silos* (L. 6057; 6055; 6047; 6035; 6037). This feature is to be related to the most recent level of square 1010/680.

The earliest phase of this area was excavated in 2011 in the eastern half of square 1020/670. It consists of a large stone foundation (L. 6058-59), oriented northwest-southeast, running along the entire space of the square, which has been leveled with mudbricks.

Operation B

This operation consisted of two squares: the southern half of 1070/710 and 1080/700, both located on the very steep northeastern slope of the mound. Fieldwork began in 2010, supervised by C. Pappi and C.W. Hess, who continued the work with S. Kluitenberg and A. Ali Hama Amin in 2011.

Square 1070/710

This square revealed a conspicuous modern deposit. A small compound was excavated, including a group of five ovens of the traditional *tannur*-type. These ovens seem to have stood in the open air, since no clear inside floor or working surface was in evidence.

The removal of the modern bakery yielded near the northern edge of the excavated area a massive mudbrick structure, at least 2.5 m wide, on a stone footing (L. 3063; 3106; 3112), oriented east-west, covering the northern half of the excavated area. The structure, partially excavated in 2011, was eroded on its northern side, but some rows of mudbricks

[13] Invernizzi 1997, 241-244.

[14] Type BF 3.4, Hausleiter 2010, 299-300.

were still preserved. The dating and the structural connections to the rest of the settlement remain unclear.

The foundation of the wall (L. 3063; 3106; 3112) covered a sequence of trodden surfaces (L. 3113; 3314; 3117; 3118; 3119). Within these deposits were cut a number of burials (3124.401; 3127.401; 3139.401). The first burial (SQ 3124.401, fig. 18), cut deeply into the surface, contained the body of a small child in flexed position and covered above and below by large fragments of two jars which had collapsed upon the body. Two earrings and a bracelet (SQ 3124.302; SQ 3124.303; SQ 3124.304) of bronze were still placed above and beneath the skull and around the wrist of one arm, respectively, while a small white bead (SQ 3124.305) was found in the sieved grave earth. The second burial (3127.401), cut into a shallow pit, contained another small child in flexed position, though the skull had apparently been cut by the foundation trench of the later phase. Most likely earlier than the other burials was Burial SQ 3139.401 (fig. 19), placed in a shallow grave. The skeleton was placed on its back with legs outstretched and arms folded across the chest. Both arms and chest were badly shattered. The remains of an iron knife (SQ 3139.301) were laid across the pelvis.

The earliest phase reached in 2011 consists of the leveled collapse of at least one building covering the greater part of the square. Larger sherds, including whole rims and bases, fragments of decayed mudbrick, and fragments of baked mudbrick were scattered throughout, though without clearly defined architectural features.

Two major features of the collapse were a pottery assemblage (L. 3135, fig. 19) in the southwest corner of the square and a scattered cluster of baked bricks and mudbrick fragments. The material assemblage contained a mixture of storage and cooking pottery, mostly dating to the Late Assyrian Period,[15] extending into both the southern and western sections of the square as well as below the excavated surface. A grouping of baked bricks and fragments (L. 3137, fig. 19), sloping or even upright within the deposit, was found northwest of the pottery assemblage, north of a cluster of stones. Some are incised with various decorative lines, either across the bricks or diagonally, in groupings of one to five lines. The eastern half of the square contained a number of pits, as well as a loosely connected grouping of embedded brick fragments around a large mill stone (L. 3147, fig. 19) and the remains of a *tannur*-oven (L. 3146, fig. 19) surrounded by an ash pit (L. 3145).

Square 1080/700

In the square 1080/700, due to the steepness of the slope and disturbance of modern activities, a small part of the area was excavated. Under the remains of the modern village, where a fragmentary inscribed brick (SQ 10-22) was found, a sequence of mudbrick structures with stone footing were detected, built along the slope of the mound and oriented northwest-southeast.

In the oldest levels, under a thick layer of clayish deposits, two circular silo-like structures (L. 4052; 4053) were excavated in 2010.

[15] A complete analysis of the pottery assemblage is scheduled for the next season.

The fieldwork continued in 2011, but no relevant settlement levels were detected in the area. The earliest evidence consisted of two badly preserved structures (L. 4077; 4078, Fig. 20), oriented northwest and northeast, that run into the south section. Their function is still unclear.

Operation C

Fieldwork in this operation, consisting of a narrow strip in the western half of square 1090/680, located on the eastern slope of the mound, was carried out by K.M. Ahmed in 2010 to explore some anthropic evidence made visible by an artificial cut operated by the villagers to enlarge a road leading up to the tell.

The small sounding revealed two main occupational phases, i.e. two stone pavements (L. 5018; 5022) highly disturbed by modern pits.

An isolated feature consisted of the fragment of a water conduit made of terracotta which obviously had been displaced from its original context and was found lying next to a square brick, measuring 38 x 38 cm.

Operation D

Area D was specifically opened to explore the older occupation layers of Satu Qala. The choice for the location of Area D was based on observations made on the southeast slope of the tell. Inspection of this side of the tell had revealed that it sits on top of an alluvial gravel bed. The river had cut into this bed, thereby not only eroding the bed itself but probably also the tell on top of it, resulting in an extremely steep slope along this side of the tell.

In the southern part of the southeast slope, a thick accumulation of land snail shells had been observed on the surface, with a possible floor at a slightly higher elevation. Since the steep slope prohibited excavation in regular squares, it was decided to approach these features through a surface scraping operation. A 3 m wide section was laid out from the houses on top of the tell down to the foot of the tell. Within this section, the surface was scraped by removing a topsoil layer of varying thickness. The resulting surface was cleaned and drawn as a regular vertical section, and locus numbers were then assigned based on the drawing. Finally, each locus was sampled for artefacts and a number of radiocarbon samples were taken from the lower half of the section.

The initial plan was to extend the section down to the gravel bed on which the site sits, but this proved too time-consuming and was not achieved during the 2011 season. Nevertheless, the deepest 3 m that were exposed were devoid of artefacts, suggesting that at least in this part of the tell virgin soil may have been reached.

The next 3 m consisted of the so-called ‘shell midden’ layer that had already been observed on the surface. It actually consisted of a number of separate layers with varying densities of land snail shells. Pottery was absent from this part of the section. Flint was

abundant but obsidian or other stone artefacts were not recovered, although this might be a product of the limited exposure and sampling procedure.[16]

The land snail shells at Satu Qala belong to the species *Helix salomonica*.[17] This species is still present in Iraq today in regions with an annual precipitation between 400 and 1200 mm (Harris 1978: 458). *Helix salomonica* occurs frequently in late Epipalaeolithic and early Pre-Pottery Neolithic sites in northeastern Iraq, among others Jarmo, Nemrik, and layer B of Shanidar Cave (see Lubell 2004 for an overview). At Jarmo, for example, the quantity of unbroken shells of *H. Salomonica* from excavated areas was estimated at over 2 m^3 (Braidwood 1983: 542). Based on the size of the shell layers at Satu Qala and the density of shells within them, it seems that processing of *H. salomonica* may have been just as intensive as at Jarmo. Most excavators at other sites suggest that the snails were collected for consumption. Lubell has related the frequent occurrence of land snail shells in Near Eastern sites dating to the late Pleistocene/early Holocene to a combination of climatic conditions that allowed the spread of land snails across the wider Mediterranean and Near Eastern region and the transition to agriculture that took place around that time (Lubell 2004: 87).[18]

Conclusions

These two seasons in Satu Qala produced encouraging results and opened up new perspectives in the future archaeological and historical research relevant for this area and for the knowledge of the history of the site. Fieldwork in operation A and B provided a good sequence of the occupational levels of the settlement from the Late Neo-Assyrian Period to the most recent levels of the modern village of Satu Qala.

Based on sporadic epigraphic finds, occupational phases dating to the Middle and to the Neo-Assyrian periods had been expected. But after two digging seasons the perspectives and the aims of the project can be extended to a wider chronological range. After the fieldwork in Area D, it can be assumed that the site of Satu Qala was occupied at least from the Neolithic onwards. Furthermore, the occurrence of glazed tiles and a cylinder seal, probably of local production with Assyrian influence, dated to the ninth century BC, reveal the existence of a political and administrative center related to Assyria during the initial expansion of the Neo-Assyrian empire period. The finds further hint at the site's relationship to the region located beyond the Zagros. Finally, the domestic nature of the archaeological record of the earliest excavated levels of area A and B reveal

[16] Area D was opened late in the season of 2011 and due to time constraints none of the material from the section could be drawn or studied on site. The material has been stored in the dighouse in Taqtaq and will be studied during an upcoming season. The radiocarbon samples have been stored with the Department of Antiquities in Koya, as they could at the time not be taken out of the country.

[17] The species identification of the land snail shells was kindly carried out by Dr. A.J. de Winter, Curator of non-marine mollusca at the Netherlands Center for Biodiversity Naturalis. The analysis was based on a very small sample so that it cannot be ruled out that other species were also present. Species that have been identified at other prehistoric sites in northern Iraq, and that could potentially be present at Satu Qala as well, include the river clam *Unio tigridis* and *Levantina* sp. (Lubell 2004).

[18] The villagers of Satu Qala indicated that they do not collect land snails.

that the site had probably changed its political and economic role in the seventh century. The use of older materials, including inscriptions of Assyrian kings 200 years older, in the masonry of domestic structures and the contemporary use of Late Assyrian pottery reveal probably a post-imperial Assyrian occupation of the site that should be further explored in the next seasons.

4. THE INSCRIPTIONS (W.H. VAN SOLDT AND C.W. HESS)

During the first and second season at Satu Qala, 41 inscribed objects were found, 26 in 2010 and 15 in 2011. Most of these were written on bricks that had been part of the embankment wall of the palace (*ki-si-ir* É.GAL), but other materials were used as well. Unfortunately, none of these objects were found in their original context. The long occupation of the site led to a constant re-use of older material and the inscribed bricks were often included in later walls and floors. Most of the texts are in a fragmentary condition, but there are several bricks that are almost completely preserved. The inscriptions can more or less be pieced together from these larger bricks and the smaller fragments.

Apart from the bricks found in Satu Qala, there are several inscriptions that had previously been acquired by museums in Iraq. Three are currently in the Suleimaniya Museum (siglum: SM), one of which was found at Satu Qala in 2008. Four further inscriptions are kept in the Museum of the Directorate of Antiquities in Koya (siglum: Koya).[19] Three of these are said to come from Satu Qala, one however from Kânî Bî, a village ca. 16 km east of Satu Qala along the Lower Zab. An inscription cited in an unpublished B.A. thesis written at the Salahaddin University in Erbil by Mr. Niyaz Azez and quoted in the museum register in Koya is currently in the Iraq Museum in Baghdad. No museum numbers have as yet been assigned to the pieces in Koya. The museum number of the fragment in the Baghdad Museum is unknown. The numbers given below are provisional.

In the following pages, the inscriptions are given in transliteration and translation. It is impossible to give here the photos and copies of all the sources, but copies of some of the better preserved versions have been included. A full presentation of all the inscriptional material must await the definitive publication.

The texts are presented in the reconstructed chronological order of the kings of Idu. Arguments for this reconstruction will be discussed in chapters 5 and 6. The first group consists of four kings, Šara…ni (reading uncertain), Abbi-zēri, Bā'ilānu and KAM-*ti-e-ni*. All inscriptions of this group are found on bricks originally belonging to the embankment wall of the palace. The second group consists of Imzuyānu (reading uncertain), Edima and Ba'auri. Their inscriptions are found on regular bricks and on glazed bricks. Finally, there is an inscription of the Assyrian king Aššurnaṣirpal II on a glazed brick.

[19] We would like to thank Mrs. Nawroz Hamad Ali, the representative of the Directorate of Antiquities in Koya, for her kind permission to study the texts.

The earlier group of kings

Abbi-zēri

This three-line building inscription of Abbi-zēri (*Ab-bi-ze-ri*) is preserved on three brick inscriptions, SQ 10-3, SM 1068, and Koya 3.

SM 1068 (fig. 21)

1 [É.GAL ^{m}*Ab-b*]*i-ze-ri* MAN KUR URU *I-di*
2 [……]x-*ni* MAN KUR URU *I-di-ma*
3 [……]ˈÉˈ.GAL ^{m}*Ab-bi-ze-ri*

Koya 3 (fig. 22)

1 É.GAL ^{m}*Ab*-[*bi-ze-ri* …]
2 DUMU ˈx-*ra*ˈ-[…]

SQ 10-3 (fig. 23)

1 É.G[AL …]
2 A *Ša*$^{?}$-x[…]
3 *ki-si*-[*ir* …]

"[1]Palace of Abbi-zēri, king of the land of the city of Idu, [2]son of Šara…ni, also king of the land of the city of Idu. [3]The embankment wall of the palace of Abbi-zēri."

Although in SQ 10-3 the name of the king is not preserved, it probably belongs to this group. SM 1068 also has three lines and the line starting with *ki-si-ir* is always the last one in the inscriptions of the earlier kings. Note, however, that the Koya inscription seems to leave this line out.

In line 2, the sign following A or DUMU could be ŠA or perhaps ZU. In the Koya inscription the second sign of the name is probably RA. The last sign of this patronymic of Abbi-zēri is a clear NI, but the sign preceding it in SM 1068 is unclear. It consists of two vertical wedges intersected by a horizontal. The reading Šar…ni is only tentative.

In line 3, the word *ki-si-ir* has been restored from other inscriptions. The spelling suggests a by-form *kisru* of the better known *kisirtu*.[20]

Bā'ilānu

A five-line building inscription of king Bā'ilānu (fig. 24), son of Abbi-zēri, is preserved on nineteen bricks: eleven from Satu Qala[21], one fragment in the Suleimaniya

[20] CAD K 422a s.v. *kisirtu* "dam, embankment, facing," as in the embankment wall built by Adad-nērāri I in Assur (RIMA 1, 141, no. 8); see the overview in Harrak 1985. Note also the form *mīlu* for *mīltu* "flood" in texts from Dūr-Katlimmu, for which see Röllig 2008: 70.

Museum[22] and seven from Koya.[23] The inscription is quite similar to the one of KAM-*ti-e-ni*, for which see below. A complete score of both inscriptions will appear in the definitive publication.

1 É.GAL *Ba-i-la-ni* MAN KUR URU ˹*I-di*˺
2 A *Ab-bi*-NUMUN MAN KUR URU *I-*˹*di*˺*-ma*
3 É.GAL *ša e-pu-šu-ú-ni*
4 *a-na ša* AD.MEŠ-*šu ú-ša-te-er*
5 *ki-si-ir* É.GAL [m]*Ba-i-la-ni*

"[1]Palace of Bā'ilānu, king of the land of the city of Idu, [2]son of Abbi-zēri, king of the land of the city of Idu. [3]The palace which he built [4]he made greater than that of his fathers. [5]The embankment wall of the palace of Bā'ilānu."

There are some small differences between the inscriptions of Bā'ilānu and KAM-*ti-e-ni*. In line 2, most of the Bā'ilānu inscriptions favor the spelling NUMUN instead of *-ze-ri* in the name of Abbi-zēri. Only one text (SQ 11-T5) has a syllabic spelling. All inscriptions of KAM-*ti-e-ni* write this element syllabically. In line 4, some of the texts (SQ 10-1, 10-4, 10-15, SM 1085) write *a-na* as a ligature (*a+na*). In the KAM-*ti-e-ni* inscriptions the only attestation of this word has *a-na* (SQ 11-T1). The word *abbē*, "fathers", is almost always spelled AD.MEŠ in the Bā'ilānu inscriptions (AB.[MEŠ] in SQ 10-15), but AB-*e* in the inscriptions of KAM-*ti-e-ni*.

One inscription (Koya 5) can be atttributed to either king.

KAM-ti-e-ni

A five-line building inscription of king KAM-*ti-e-ni*, son of Abbi-zēri, is preserved on 15 bricks which – other than the bricks carrying Bā'ilānu's inscription – were all found at Satu Qala.[24] No inscription is complete.

1 É.GAL [m]KAM-*ti-e-ni* MAN KUR URU *I-*[*di*]
2 A *Ab-bi-ze-ri* MAN KUR URU *I-di-*[*ma*]
3 É.GAL *ša e-pu-šu-ú-ni*[25]
4 *a-na ša* AB-*e-šu ú-ša-te-e*[*r*]
5 *ki-si-ir* É.GAL [m]KAM-*ti-e-n*[*i*]

[21] SQ 10-1, 10-4, 10-9, 10-14, 10-15, 10-22, 11-T5, 11-T8, 11-T10, 11-T12, 11-T13.
[22] SM 1085.
[23] Koya 1, 2, 4, 6, 7, 8, 9.
[24] SQ 10-7, 10-11, 10-16, 10-17, 10-26, 10-27, 10-31, 10-35, 10-37, 10-41, 11-T1, 11-T2, 11-T4, 11-T7, 11-T11.
[25] SQ 10-31 apparently leaves out Ú.

"[1]Palace of KAM-*ti-e-ni*, king of the land of the city of Idu, [2]son of Abbi-zēri, [also] king of the land of the city of Idu. [3]The palace which he built [4]he made greater than that of his fathers. [5]The embankment wall of the palace of KAM-*ti-e-ni*."

In line 3 one text (SQ 10-31) appears to have left out the sign Ú. The sign *-ni* is only preserved in SQ 10-16 and 10-31.

In lines 4-5 the beginning of the lines is only fully preserved in SQ 11-T1. For the orthography AB-*e-šu*, against the AD.MEŠ-*šu* of the inscriptions of Bā'ilānu, see the inscription of the latter, above.

The later group of kings

Edima

There is no direct connection between the earlier and the later kings. It is possible that one or two kings should be added before the later group, but this is uncertain (see also below and section 5).

The earliest inscription of the later group is the inscription of Edima, son of Imzuyānu (SQ 11-T9, fig. 25). Unlike the earlier texts, it consists of only two lines which are partly broken and difficult to read. This goes in particular for the name of the father. Edima is also attested in the inscriptions of his son Ba'auri, for which see below.

Unfortunately, the name of the city is broken. The restorations are based on the inscriptions of earlier and later kings.

1 É.ᵍGAL ᵐ*E-di-ma*ᵎ M[AN URU *I-di*]
2 ᵍA[?] m?ᵎ*Im*[?]*-zu*[?]*-ia-ni* MAN U[RU *I-di-ma*]

"[1]Palace of Edima, king [of the city of Idu], son(?) of Imzuyānu(?), [also] king of the city [of Idu]."

In the first line the name Edima seems certain, even though some of the signs are not complete. The beginning of the second line is difficult to read, but the preserved traces seem to point to the interpretation presented here. Nothing is known about a king Imzuyānu outside this text.

Ba'auri

The name of this king is attested on two glazed bricks.[26] The name of his father Edima is preserved on only one of them (SQ 10-10+). For the father, see above. The inscriptions are painted above and below the drawings that cover most of the brick's surface. For a description of these objects, see section 3 of the present article.

The first brick (SQ 10-6, fig. 4) preserves the following inscription:

[26] SQ 10-6 and SQ 10-10+10-13+10-45+10-46 (complete after join).

1 [... *Ba*]-˹*a*˺-*u-ri* MAN KUR *I-di*
2 [A ...] MAN KUR URU *I-di-ma*

The second brick (SQ 10-10+, fig. 5) is composed of four fragments bearing the depiction of a winged, bearded sphinx with a 2 line inscription.

1 É.GAL ^{m}*Ba-a-u-ri* MAN KUR *I-d*[*i*]
2 ˹A˺ ^{m}*E-di-ma* MAN KUR *I-di-ma*

These two inscriptions are probably almost identical and the translation is as follows:

"[1]Palace of Ba'auri, king of the land of Idu, [2]son of Edima, also king of the land of Idu."

As far as the texts are preserved, the only noticeable difference is the addition of URU in the second line of SQ 10-6. In the earlier texts KUR and URU are normally both present (see above). In the inscription of Edima only URU appears to have been written (see above). For the names of the kings Edima and Ba'auri, see below.

We can add one further inscription of this king, found during excavations in level IV of Hasanlu Tepe, south of the Urmia Lake, together with a large number of other imported Assyrian materials. The destruction of this level can most likely be dated to the end of the ninth century BC.[27] The text is inscribed on a stone bowl (HAS 64.648), and was most recently edited by M. Salvini.[28] It is palaeographically similar to the glazed brick inscription of Idu. The inscription identifies the bowl as belonging to the "Palace of Ba'auri, king of the land of Idu"[29]. How and why this inscribed object arrived at Hasanlu remains unknown.

An inscription of Aššurnaṣirpal II

During the 2011 excavations a glazed plaque carrying an inscription was recovered in square 1010/680 (SQ 11-T14, fig. 14). Unfortunately, only a quarter of the brick is preserved. It had been used as filling material in a wall. While the last signs of the personal name and title are broken, both style and palaeography would indicate a restoration Aššurnaṣirpal, most likely none other than Aššurnaṣirpal II of Assyria (fig. 26).

The inscription reads:

˹É˺.GAL ^{m}*Aš-šur*-PAP-[A MAN KUR *Aš-šur* …]

"Palace of Aššurnaṣir[pal, king of the land of Aššur …]"

[27] Dyson 1965: 202; Muscarella 2012: 267f.
[28] Salvini 1984: 55-56. Salvini dates the bowl to the 9th century.
[29] For the rest of the inscription, see Salvini 1984.

Close inspection of the name reveals that a reading *Aš-šur* is more likely than *A-šur*. Note that *Aš-šur* is the spelling used in Aššurnaṣirpal's inscriptions.

The names of the kings of Idu

The names of the kings pose a problem. Most of them seem to defy easy interpretation and are unattested elsewhere. The two writings *Ab-bi-ze-ri* and *Ab-bi-*NUMUN confirm the interpretation of the second element. It would seem to indicate a Semitic name, though we are unable to find parallels for *Abbi-* elsewhere.

The most likely explanation for *Ba-i-la-ni* would be a hypochoristic form with the *-ān* suffix of names such as *Bā'il-Marduk* or similar as well as the shortened form *Bā'ilu*, attested in the Middle Babylonian personal names from Nippur but atypical for Middle Assyrian.[30]

As for KAM-*ti-e-ni*, a reading *Erištēnu* finds support in an undated, but palaeographically Middle Assyrian inscription found at Nineveh and published by A.R. Millard.[31] Only the left side of the tablet is preserved, but mentions a king [^{m}*I/E-ri*]-*iš-ti-e-en-ni* (obv. 2') in connection with the KUR *Lu-ul-lu-ma-a* (rev. 12'), "Lullubaean land." Millard suggests a "Hurrian-Akkadian hybrid name," translated "Desire of the gods", but the name may also be interpreted as a hypocoristic of a name beginning with *erištu*.[32]

E-di-ma is unintelligible, though we can perhaps compare it structurally to the Idaean *Nik-di-ma* defeated by Shalmaneser III in Zamua (*RIMA* 3.0.102.10 ii 6-9).

The name *Ba-a-u-ri* is also problematic, but it could be of either Hurrian or Urartian origin. If so, it should probably be understood as a verbal base *b/pa-* with the ending *-auri*.[33] Both in Hurrian and in Urartian such an ending exists, which according to G. Wilhelm serves as a suffix for the "patient-oriented participle" with transitive verbs.[34]

The name Ba'auri is possibly already attested as *Ba*-IA-*ú-ri* (Bayuri or Bayauri) in a Middle Assyrian sale document (*KAJ* 169), belonging to the archive of the family of Urad-Šerūa, dating to the period between Adad-nīrārī I (1305-1274) and Tukultī-Ninurta I (1243-1207).[35] This person is said to come from the city of Paranzi and acts as the seller

[30] E.g. BE 14, 56a, 18, listed in AHw 120 s.v. *bêlu* and CAD B 30b s.v. *bā'ilu*, see Hölscher 1996: 44.

[31] Millard 1985: 21 (= RIMA 1.0.76.1001), following a suggestion by W.G. Lambert in Klengel 1966: 361 fn. 68.

[32] Compare also the name ^{f}*E-riš-te-e* from Tell Billa, for which see Saporetti 1970: 213.

[33] Despite the spelling one could also think of an ending *-uri*. Pruszinsky 2003: 229, following Salvini 1998: 309, identifies a verbal form *pai-* "he created" as well as the adverb (p. 232) *-ur*(*i*)- "there, present," though it is hard to see how both together could produce a meaningful name. In Urartian there is a participle ending *-uri* which serves as a "subject-oriented participle" with intransitive verbs, see Wilhelm 2004: 124 (14).

[34] For Hurrian, see Wilhelm 2004: 103 (4), and Wegner 2007: 113 ("beschreiben vollendete Handlungen…"). For Urartian, see Wilhelm 2004: 125 (3) and Hazenbos 2007: 151. See also Wilhelm 1988.

[35] Postgate 1988: ix-x.

of a slave girl who is identified by Postgate as a Lullubean.[36] Whether Urartian names could be expected at such an early date remains unknown for lack of data.

As for the date of these texts, note that the shape of the sign BA fits the early Neo-Assyrian period better than the Middle Assyrian period (see below).

The language of the inscriptions

The language in which the inscriptions are written is the Assyrian dialect of Akkadian. The inscriptions resemble the ones known from other provincial capitals very closely, such as the ones found in, for example, Tell Bderi (Dūr-Aššur-ketta-lēšer).[37] The ductus of the inscriptions is clearly Middle Assyrian and certain features such as the subjunctive in *-ni* and the prefix *ē-* for the 3rd p. of *epēšu* also point in this direction; compare the form *e-pu-šu-ú-ni* (*ēpušūni*) in the Bā'ilānu and KAM-*ti-e-ni* inscriptions. Also the ligature *a+na* is well-known from Middle Assyrian texts[38]. These remarks mainly apply to the inscriptions on bricks made of dried clay, the glazed bricks are too short for such an analysis. They are to be dated on the basis of their iconographical features, for which see section 3 of the present article.

The palaeography of the inscriptions

A brief overview of some sign forms is given in the table (fig. 27), using the copies made by van Soldt during the 2011 excavations.[39] The best point of comparison is provided by the inscriptions from Tell Bdēri and Tell Ṭābān, particularly those of Aššur-ketta-lēšer (II), son of Adad-bēl-gabbe. S. Maul dates this king to the middle of the twelfth to the early eleventh century BC, making him a contemporary of the king Tiglath-Pileser I in Assur.[40]

If we begin with the inscriptions from Abbi-zērī, Bā'ilānu, and KAM-*ti-e-ni*, we can identify similar forms particularly in BA, ŠA, and NA between the Satu Qala and Tell Ṭābān inscriptions. All would indicate a date in the later rather than earlier Middle Assyrian period for the inscriptions from Satu Qala.

The second set of inscriptions of Edima and Ba'auri offer far fewer points of comparison. The two lines of the brick inscription of Edima are tighter and more cramped. But particularly the form of BA in the glazed bricks of Ba'auri would indicate an early Neo-Assyrian rather than a Middle Assyrian date.

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[36] See the reading ^{m}*Ba-iu-ú-ri* in Postgate 1988: 123, following collation; see also Faist 2001: 183 fn. 165. Saporetti 1970: 480 lists the name under *Tejauri*, following the copy in KAJ 169. Cf. also the names ^{m}*Iš-pa-ú-ri*, attested for a man from the town of *Na-ḫal-ṣar-bi-te* in a Neo-Assyrian text from Šibanība, *JCS* 7, 137 Nr. 72, 6 and ^{m}*Iš-pi-ú-ri-i*, listed as mayor of Jagirija in *JCS* 7, 137 Nr. 69, 15. Both texts most likely date to the reign of Shalmaneser III. Salvini 1984: 55 also compares the personal name *Ka-ú-ri*/*Qa-ú-ri* from Nuzi. See Cassin and Glassner 1977: 78.

[37] See Maul 1992; Maul 2005; van Soldt 2008.

[38] See, for example, Cancik-Kirschbaum 1996: 73f; Maul 1992: 55f; Maul 2005: 83f.

[39] Sign forms for Tell Bdēri/Tell Ṭābān are taken from Maul 2005.

[40] Maul 2005: 10-17; cf. Shibata 2007: 66; Shibata 2012: 489.

5. A SKETCH HISTORY OF IDU IN THE MIDDLE AND NEO-ASSYRIAN PERIODS (C.W. HESS)

The Middle Assyrian Period

During the Middle Assyrian period, Idu was a province of the Middle Assyrian empire. Since the conquest of Idu is never mentioned in the royal inscriptions, we are left with only general considerations on the surrounding areas for the date of Assyrian control.[41]

Middle Assyrian presence along the Lower Zab is securely indicated by the excavations at Bazmūsiyān, upstream from Satu Qala in the Rāniyā plain.[42] The small group of fragmentary tablets found there have been roughly dated to the thirteenth century, indicating Middle Assyrian control beyond Idu by this time.[43] Indirect evidence for earlier Assyrian control over the region of Idu might then be inferred from reports on the Assyrian expansion along the Lower Zab and towards Lullubu. Adad-nērārī I's eastward expansion is reflected in his title of "defeater of the mighty army of the Kassites, the Gutians, the Lullubaeans and Subaraeans."[44] A section of the Synchronistic History indicates the battles between Adad-nērārī I (1305-1274/1295-1264) and Nazi-Maruttaš had led to Babylonian defeat and establishment of boundaries roughly 75 km south of the Lower Zab, but, following S. Jakob, not to permanent control over the territory.[45] At least from Shalmaneser I's reign on, several cities on the Lower Zab already belonged to Middle Assyrian territory.[46] MARV 3, 10, a *pišerti karū'e*-text connected with the eponymate of Aššur-kāšid, reports on yields from Turšan (Tell Māḫūz), Sira and Tarbašḫe.[47] If B. Ismail and J.N. Postgate are correct in their identification of the *bēl pāḫete* Iddin-Aššur in the Tell ʿAlī texts, then (N)Arzuḫina may also have been a province at this time as well.[48] Even though the identification of the latter with Gök Tepe remains uncertain, this puts us ever closer to the territory of Idu. Connecting this

[41] See the discussion of the Assyrian presence on the Lower Zab in Tenu 2009: 172; Pappi 2012; Llop 2012: 103f.

[42] Tenu 2009: 170f; Pappi 2012: 603.

[43] Læssøe 1959: 17; Tenu 2009: 171.

[44] Adad-nērārī I: [3]*né-er dap-nu-ti um-ma-an kaš-ši-i* [4]*Qu-ti-i Lu-lu-mì-i ù Šu-ba-ri-i* RIMA 1.0.76.1, 3-4; Shalmaneser I: *ka-ši-id Lu-ul-lu-bi-i ù Šu-ba-ri-i* RIMA 1.0.77.4, 14; see Cifola 1995: 25f. and Tenu 172, who assigns Adad-nērārī I control over all the territories up to the Zagros foothills; but cf. Klengel 1966: 361 for references to Lullubu under Adad-nērārī I and Shalmaneser I as a tradition which need not reflect a real political situation.

[45] Grayson 1975: 160f. i 24'-31' = Glassner 2005: 178 i 24'-31'; Jakob 2011: 191-208. Babylonian incursions up to the city of Kilizu in the time of Enlil-nērārī are mentioned in Grayson 1975: 185, 3-10 (Assyrian Chronicle Fragment 1) = Glassner 2005: 184 (Chronicle of Enlil-nārārī). Cf. Adad-nērārī I's title [5]*mu-dí-ip kúl-la-at na-ki-ri…* [7]*iš-tu Lu-ub-di ù māt(KUR) Ra-pi-qu* [8]*a-di E-lu-ḫat* (RIMA 1.0.76.1, 5-8).

[46] Shalmaneser I's (1273-1244) main military concern seems, however, to have been with Ḫanigalbat and Uruaṭri in the north rather than with the south or east (e.g. RIMA 1.0.77.1).

[47] Freydank 1994: 13-30. On the Location of Turšan, probably Tall Māḫūz on the southern bank of the Lower Zab, see Fincke 1993: 305-309. The date of MARV 3, 10 is broken, but Aššur-kāšid is listed as the eponym at the time of harvest; see Freydank 1994: 27f. Note also Llop 2012 for the first mention of Kilizu in KAV 107, 14 and A 1722, 9 under Shalmaneser I.

[48] Ismail and Postgate 2008: 151. On the identification of (N)Arzuḫina with Gök Tepe see Fincke 1993: 68f; cf. Müller 1994: 35f; Tenu 2009: 173.

expansion up the Lower Zab with Adad-nērārī I's and Shalmaneser I's epithets, we might date Idu's inclusion around the time of the Adad-nērārī I.

The first dateable mention of Idu as a province in Middle Assyrian sources occurs in MARV 4, 127, from Kār-Tukultī-Ninurta, and MARV 10, 6.[49] MARV 4, 127 lists harvest yields from several persons and places, including Idu together with Nēmad-Ištar, while MARV 10, 61 lists parcels of land in Idu as well as Nēmad-Ištar and Rēš-nēberi. Based on the place names mentioned, H. Freydank dates both texts to the reign of Tukultī-Ninurta I.[50] This at least would fit with his campaigns against Tulsinâ, Šasila and Mašḫaṭ-šarri "on the opposite bank of the Lower Zab." (RIMA 1.0.78.1 iv 24-36).[51]

Our main source for Idu in the remaining Middle Assyrian period is provided by some 37 economic texts from the administration of *ginā'u*-offerings, in which Idu, usually in a fixed sequence between Katmuḫḫu and Talmuššu or grouped together with Kilizu or Ḫalaḫḫu, delivers barley, emmer, honey and fruit to the capital.[52] Several of the texts are dated, and indicate continued Assyrian presence from the time of Tukultī-Ninurta I to Tiglath-Pileser I. MARV 7, 27 comes from the eponymate of Adad-rība in the reign of Enlil-kudurrī-uṣur;[53] MARV 5, 35 from the eponymate of Ninurta-apil-Ekur; MARV 6, 29 and MARV 6, 57 from the eponymate of Bēr-nāṣir in the reign of Ninurta-apil-Ekur (l. 16);[54] MARV 9, 12 from the eponymate of Salmānu-zēra-iqīša in the reign of Ninurta-apil-Ekur;[55] MARV 5, 1 likely from the eponymate of Saggi'u in the reign of Ninurta-apil-Ekur;[56] MARV 6, 70 and MARV 7, 58 from the eponymate of Tiglath-Pileser I (l. 11 and l. 12, respectively); MARV 6, 3 and MARV 6, 22 from the eponymate of Aššur-šallimšunu;[57] MARV 8, 13 from the eponymate of Ištu-Aššur-ašāmšu in the second year of Tiglath-Pileser I; and MARV 1, 25 from the eponymate of Ninurta-aḫa-iddina.[58] Idu is also mentioned in the long tabular lists MARV 2, 21, 6 and MARV 9, 1, 7, both from the eponymate of Pa'uzu. The tablets are usually dated to the 38th year of Tiglath-Pileser I, but H. Freydank has recently suggested an identification with Pa'uzu, the father of the eponym Aššur-šēzibanni/ēṭiranni from the archive of Ninurta-tukul-

[49] See the recent discussion on the creation of the Middle Assyrian provincial system in Llop 2012, who favors a date in the reign of Adad-nērārī I or Shalmaneser I.

[50] Freydank 2009: 44-48; Prechel and Freydank 2011: 7. As in MARV 5, 3, 17 or MARV 4, 127, 12, Idu is often paired with Talmuššu or Kilizu as a province.

[51] See Llop and George 2001/2002: 16 fn. 110 on possible localizations of Šasilu.

[52] See for the fixed sequence together with Talmuššu e.g.. MARV 5, 1, 8; MARV 5, 2 9; MARV 5, 3, 17; MARV 5, 14, 7; MARV 5, 35 obv. 14; MARV 6, 29, 2; MARV 6, 32 obv. 5; MARV 6, 57, 2; MARV 7, 30, 5'; MARV 7, 55, 6; MARV 7, 58, 3; MARV 8, 94, 11; MARV 9, 2, 9; MARV 9, 6, 7; MARV 9, 9, 4'; MARV 9, 12, 7; MARV 9, 50, 5; MARV 10, 61, 6; note also that the boatman (^{lú}MÁ.LAḪ$_5$) ^{m}*Ka-ri-ia* in MARV 6, 29 is responsible for deliveries from both Idu (l. 2) and Talmuššu (l. 6).

[53] Freydank 1991: 109.

[54] Freydank 1991: 129.

[55] Llop 2008: 24; Llop 2011: 442.

[56] Restoration suggested in Freydank and Feller 2004: 8; Freydank 2006: 219; on the date of Saggi'u, see Freydank 1991: 165.

[57] Freydank 1991, 122f.: "um das Akzessionsjahr Tiglatpilesars I."

[58] Freydank 1991: 157f.

Aššur (M6).[59] J. Llop also notes that "examination of the dates of the rest of these lists reveals that most of them… were written during the reign of Ninurta-apil-Ekur."[60] The last dated mention of Idu as a province would then be provided by the list MARV 1, 25, 16 from the eponymate of Ninurta-aḫa-iddina, dated to the 20th year of Tiglath-Pileser I.[61]

During this time, Idu was governed by provincial governors (*bēl pāḫēte*), for whom we have at least three names. The undated "tribute list" BM 122635+ published in *Iraq* 32, pl. 33-34 lists an ^{m}*Ú-ʿba*$^{?}$*-sa-ia*ˀ *bēl pāḫete*(EN.NAM) *ša* ^{uru}*I-[di*].[62] Another provincial governor of Idu, Aššur-abuk-aḫḫē, is mentioned together with the *rab ginā'e* Ezbu-līšir, in MARV 6, 22, 6'-7', a receipt for the delivery of *ginā'u*-offerings for four years dated to the eponymate of Aššur-šallimšunu.[63] S. Jakob further identifies the Aššur-ēriš in MARV 1, 25 as *bēl pāḫete* of Idu and supervisor of the *qēpu*-administrators Ēṣidu and Serrēmu, responsible for the collection of offerings.[64] In MARV 6, 3, MARV 6, 29, and MARV 6, 57 these were brought from Idu to the capital at Assur by boat.

The cities of Idu and Zaqqu are often paired together. If we accept C. Pappi's recent suggestion for a location of Zaqqu on the southern Bank of the Zab, near Idu, we can draw several other conclusions.[65] A literary letter edited by J. Llop and A. George names Zaqqu as the border-territory where the Babylonian king was to meet with Mutakkil-Nuska, brother of Ninurta-tukulti-Aššur and rival claimant to the Assyrian throne.[66] The synchronistic history describes Nebuchadnezzar I's failed siege of Zaqqu and Idu during the reign of Aššur-rēša-iši. If Zaqqu is to be located opposite Idu, the Synchronistic History would suggest that the area south of the Lower Zab was at least contested border territory at the time.[67] Tiglath-Pileser I, marching against Karduniaš, again had to conquer Turšān on the Lower Zab, Arman in Ugār-Sallu as well as Lubdu. He crossed the Radānu and conquered settlements at the foot of the mountains Kaštilla and Kamulla.[68] On two occasions he faced Marduk-nādin-aḫḫē in battle near Arzuḫina.[69] But A. Fuchs describes these conquests as mere raids which could no longer maintain

[59] Postgate 1985: 100; Freydank 1991: 161; Jakob 2003: 12 n. 96; but cf. Freydank 2006: 220 fn. 19 and the discussion in Llop 2011: 442; Llop 2012: 103f.

[60] Llop 2012: 103f.

[61] Llop 2012: 103f. n. 107; Freydank 1991: 157.

[62] Restoration in Postgate 1985: 99; Maul 1992: 47 fn. 178 follows Millard in dating the text roughly to the middle of the 12th century.

[63] Restoration at the end of l. 3' following Freydank 2005: 15.

[64] Jakob 2003: 282.

[65] Pappi 2012: 605f.

[66] Llop and George 2001/2002: 4, 44'.

[67] Grayson 1975: 162-164, 1'-13' = Glassner 2005: 178-181; see the discussion in Brinkman 1968: 110; Tenu 2009: 257; Fuchs 2011: 257; Llop 2012: 103f. Nebuchadnezzar I's campaigns in the area are also indicated by his title *ša dan-na* ^{KUR}*Lul-lu-bi-i ú-šam-qí-tu i-na kakki*(GIŠ.TUKUL) "who smote the mighty Lullubî with the sword" BBSt 6 i 9. A tenuous connection between Idu and Babylonia might be suggested by the personal name ^{m}*I-da-a-a* DUMU ^{m}*Ki-ri-ik-me* in the Kudurru YOS 1, 37 iii 8', from the 12th year of Marduk-šāpik-zēri; Brinkman 1968: 254 n. 1622 suggests a Kassite identification for the patronymic.

[68] RIMA 2.0.87.10, 36-40.

[69] Grayson 1975: 164f. 14'-24' = Glassner 2005: 180, 14"-24".

effective control.[70] According to a chronicle fragment, the cities Ninive, Kilizu, and Idu may have already been subject to Aramaean raids during the reign of Tiglath-Pileser I.[71]

The Local Dynasty of Idu

If the considerations on the palaeography of the inscriptions from Satu Qala are correct, they are unlikely to date much earlier than Tiglath-Pileser I. The local dynasty thus most likely arose in the wake of the disintegration of Middle Assyrian imperial control, either late in the reign of Tiglath-Pileser I (after year 20) or during the reigns of Ašarēd-apil-Ekur or Aššur-bēl-kala. Since the area around Idu was already hotly contested under Aššur-rēša-iši and Tiglath-Pileser I, we would tend to date the rise of an independent dynasty at Idu rather earlier than later.[72]

While the short label inscriptions yield no information on history or political relations, the dynasty must have been stable enough to allow at least seven successive kings, most likely from the same dynasty, six of whom were able to undertake construction work on the site. The titles of "king of the land of (the city of) Idu" indicate regional control beyond the immediate city environs. But how far political control extended remains unclear. The presence of an inscription of Baʾauri at Hasanlu, noted in section 4 of the present article, suggests some sort of relations between Idu and the Zagros, though the inscription itself may also simply have arrived at Hasanlu after the Assyrian reconquest of Idu.

The kings of Idu could then maintain political independence from Assur over at least seven generations. But palaeography as well as the styles of the decorations reflect contemporary developments in Assyria, hinting at continued ties to the informal empire of Assyrian cultural dominance.

The Reconquest of Idu

The annals of Aššur-dan II already indicate a renewed Assyrian expansion along the Lower Zab in connection with the Aramaean Ruqaḫu.[73] The next mention of Idu in the Assyrian royal inscriptions is in the long version of Adad-nērārī II's annals (911-891), dated to his 19th year (893 BC). There he bears the epithet ^{URU}*I-du* ^{URU}*Zaq-qu bi-ra-a-te*^{MEŠ} *šá māt*(KUR) ^{d}*A-šur a-na mi-ṣir māti*(KUR^{ti})*-šu ú-te-*ˀ*er*ˀ*-ru* "(who) brought back

[70] Fuchs 2011: 259.

[71] […] *I-di ḫal-ṣi* ^{uru}*Ninua* ^{kur}*Ki-li-[zi iḫ-bu-tu]*, Grayson 1975: 189, 12 (Assyrian Chronicle Fragment 4) = Glassner 2005: 188, 12' (Chronicle of Tiglath-Pileser I), who accepts the reading Idu; cf. Postgate 1985: 100 for a possible reading of either [Tai]du or Idu.

[72] But note that Aššur-bēl-kala still claims to have both battled Aramaeans (RIMA 2.0.89.7 iii 27) and hunted (RIMA 2.0.89.7 iv 17f.) on Mount Ḫāna in Lullubu (*šid-di* KUR *Lu-lu-me-e*), which may imply a claim to control over the associated territories. See the discussion on the localization of Ḫāna, to be distinguished from Ḫāna on the Middle Euphrates, in Nashef 1982: 117.

[73] […]-*li māt*(KUR) *Ru-qa-ḫu* ^{íd}*Za-ba ša māt*(KUR) x [x (x)], RIMA 2.0.98.1 22; see Lipiński 2000: 47-49; Pappi 2012: 605. The identfication of ^{íd}*Za-ba* with the Lower Zab was already proposed by Weidner 1926: 156 fn. 9.

into the boundaries of his land the cities Idu (and) Zaqqu, fortresses of Assyria."[74] This means that the dynasty of Idu can have ruled no more than about 183 years, from 1076-893. Despite the absence of any more precise dates, if we assume a ballpark figure of 20 years per reign, the seven kings together would already give us about 140 years. If we push the conclusion further and assume again, based on the palaeographic similarity to Tell Bdēri and Tell Ṭābān, that the father of Abbi-zērī was the first king of independent Idu, we would be missing at most two kings between KAM-*ti-e-ni* and *Im-zu-ia-ni*.

By the time of Aššurnaṣirpal II's first campaign, the Assyrian army was able, following M. Liverani's reconstruction, to ford the Haibat-Sultan north of Koi Sanjaq and, by the third campaign, to Zamua, move south from Kilizu across the Lower Zab to the Bābītu pass without mention of Idu in between.[75] The fugitive remnants of the Idaeans, under Nikdera and Nikdeme, were then captured by Shalmaneser III in his fourth regnal year, crossing Mount Kullar and entering the land of Zamua (RIMA 3.0.102.6 ii 10-12).[76] It is noteworthy that he also mentions the capture of their cities in this region (URU.MEŠ-*ni šá* ^{m}*Ni-ik-de-ra* URU *I-da-a-a-a* ^{m}*Ni-ik-de-ra-ma*).

Aftermath and decline

The fragmentary glazed plaque SQ 11-T14, discussed in section 4 of the present article, however, provides a promising glimpse of an aftermath to Adad-nērārī II's conquest. Accepting a restoration ˹É˺.GAL ^{m}*Aš-šur*-PAP-[A MAN KUR *Aš-šur*] and identification with Aššurnaṣirpal II of Assyria, we can presume the construction of another Assyrian palace at Idu after the reconquest under Adad-nērārī II. J.N. Postgate identifies the rebuilding or restoration of palaces and provincial centers as "one of a number of topoi to do with the economic revitalization of Assyria" from Tiglath-Pileser I to Shalmaneser III.[77] A good example is provided by the building of Apku by Aššur-bēl-kala in the "Broken Obelisk" (RIMA 2.0.89.7 v 32-35) and again by Adad-nērārī II (RIMA 2.0.99.2, 36-37). The latter mentions the widespread construction of "palaces in the districts of … [his] land." (RIMA 2.0.99.2, 120f.). The inscription SQ 11-T14 would provide the first and so far only indication that Aššurnaṣirpal II or one of his governors built or rebuilt the administrative palace of Idu.[78]

The further history of Idu in the Neo-Assyrian period is marked by steady decline, precipitated by numerous factors. At least during the eighth and seventh centuries, both

[74] RIMA 2.0.99.2, 34; cf. Brinkman 1968: 101 n. 555.

[75] Liverani 1992*:* 19-28.

[76] The nisbe "Idaean" may be interpreted as meaning that Nikdeme and Nikdera were also rulers or officials of Idu. Cf. the parallel references to the king of Ṭābētu as Ṭābetāyu in the Middle Assyrian documents noted by Shibata 2012: 492.

[77] Postgate 2003-2005: 218.

[78] Postgate 2003-2005: 218f. "The palaces in question will be mostly but perhaps not exclusively provincial capitals, serving as residence and administrative centre of a provincial governor. They are not however called 'the governor's palace' but remain very much the king's," with reference to the construction of a "palace of the king" by the governor of Amedi in SAA 4, 15 r. 8. The palace at Idu would then have to be added to the list in Postgate 2003-2005: 214. Note also the renewed Assyrian presence in level I at Bazmūsiyān, dated to the 8th or 9th centuries BC; see Tenu 2009: 170.

Idu and Zaqqu were incorporated into the province of Arbail.[79] A last, indirect reference to economic activity in the region is provided by the mention of Zaqqu in Adad-nērārī III's (810-783) "decree of regular offerings for the Aššur temple," SAA 12, 72, 8.

A major cause of Idu's decline can be sought in the shifting geography of the Neo-Assyrian period. In the Middle Assyrian period, the city could provide not only valuable farmland but easy access to the Rāniyā plain, to the Zagros, as well as to Zamua for the capital at Assur. With the transfer of the royal court to Kalḫu in 879, other routes, both along the Upper Zab to the north and through the Bābītu pass to Zamua in the south, were more useful and used, as indicated both by Aššurnaṣirpal II's campaign routes and the reconstructions in L. Levine's Geographical Studies.[80] While the archaeological evidence seems to indicate that the site of Satu Qala continued to be inhabited as a smaller settlement even until after the fall of Assyria, it was no longer of central importance to the political and geographic concerns of an expanding empire.

6. IDU UNTIL THE END OF THE OLD BABYLONIAN PERIOD (K.M. AHMED)

Satu Qala (ancient Idu) is located on a strategic point that made it an important site over the ages. As mentioned before, it is located on the Lower Zab, which is not only an important means of transportation, but which also today separates two major provinces from each other: Erbil and Kirkuk. The role of the Lower Zab as a regional boundary goes back to much older periods. In the Middle Babylonian and Middle Assyrian periods the Lower Zab region was an area disputed by the two states on several occasions and the boundary was set there only after peace had been concluded.[81] It is also said that after the fall of Nineveh the river separated the Neo-Babylonian and the Median Empires.[82] Later, in the Parthian period, the province of Adiabene, a semi-independent kingdom, was called by this name because of its location between the two Zabs.[83]

Before Qabrā emerged at the beginning of the Old Babylonian (OB) period, Idu seems to have been one of the crossing points from south to north. Idu is also located at the gate that leads from the plains of the west to the mountains of the east and northeast. Therefore, it was at a major crossroad of two axes, south-north and west-east.

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[79] Already noted by Llop and George 2001/2002: 13; Radner 2006-2008: 45.

[80] Radner 2011: 324; Levine 1974.

[81] Cf. for example Chronicle 21 about the battles round, and fixing the boundary at, the GNs Sugagu (I 19'), Šasilu (I 21'), KA.DINGIR.XV.DIŠ of Ugarsallu (I 25'), Pilsaqi (I 29'), Arman of Ugarsallu (I 30'), Idu (II 8'), close to the Lower Zab, opposite Arzuḫina (II 15'-16'), Ugarsallu (II 22'), Til-bīt-Bari (III 20), Til-ša-Batani (III 21) and Til-ša-Ṣabdani (III 21) between Assyria and Babylonia, see Grayson 1975: 160-167. For the locations of these GNs, see Grayson 1975, Appendix C. That Ugarsallu in the region south of the Lower Zab was a city under Kassite hegemony is clear from the passage that relates to the plunder of this city down to Lubdu (Daqūq) by Tiglath-Pileser I of Assyria in his struggle with Marduk-nadin-aḫḫē of Babylon, ibid., 164-5, II 15'-23'.

[82] A. Kuhrt has shown that heartland Assyria and the region around Arrapḫa (up to the Lower Zab) were part of the Neo-Babylonian Empire, see Rollinger 2003: 290-1, who refers to Kuhrt 1995.

[83] The name Adiabene, *Hidiyāb* of the Syriac sources, is the dual form derived from the name Zab in Syriac.

The oldest written evidence concerning the region of Idu comes from the Ur III period. During the reigns of Šulgi and Amar-Sîn, military campaigns reached the regions of the Lower Zab and beyond, including Urbilum and Šašrum. Šašrum is identified with modern Tell Shemshāra (OB Šušarrā) in the Rāniya Plain. The Ur III campaign against Šašrum seems to have followed the west-east axis, since there is also mention of Šikšabbum,[84] Šurutḫum[85] (var. Šaritḫum)[86] and Tikitiḫum.[87] Frayne has suggested an identification of Tikitiḫum with modern Taqtaq.[88] If we accept this, the campaign must have reached Tikitiḫum first, then Šašrum. Although there is no mention of the latter, the campaign certainly passed through the region of Idu. Even if Tikitiḫum was not Taqtaq, the mention of Šikšabbum provides solid evidence. Šikšabbum was an important center in the Early Old Babylonian period and it was frequently mentioned in the correspondence between Kuwari, the lord of Šušarrā, his lord Šamšī-Adad, and two of his officials, Etellum the general, and Yadinum.[89] According to the evidence provided by this correspondence and other sources, Šikšabbum must have been at or close to Taqtaq. The Haladiny inscription of Iddi(n)-Sîn mentions Šikšabbum as a land, not as a city. Perhaps the land around the city was called after the city during this time. Šikšabbum played an important role in the time of Šamšī-Adad's war to control the east Tigris region. It was the capital of the kingdom of Aḫāzum under the king with the Amorite name Yašub-Addu. Aḫāzum was larger than just the town and although the name does not occur in the Shemshāra texts the relative closeness of Satu Qala (= Idu) makes it possible that this town was incorporated in the land of Aḫāzum.[90] Aḫāzum was a rival of Šamšī-Adad and it should also have been an enemy of Kuwari, but Kuwari did not do anything against this despite repeated requests by his overlord Šamšī-Adad and his general Etellum. At a certain moment, Yašub-Addu of Aḫazum allied himself with the Gutians, who were ready to send troops across the river and to enter the capital Šikšabbum.[91]

[84] Edzard and Farber 1974: 181.

[85] Edzard and Farber 1974: 187.

[86] Edzard and Farber 1974: 177-8. For the misread variant Šaripḫum, see K.M. Ahmed 2012: 263, note 209.

[87] For the occurrences of Tikitiḫum, cf. Edzard and Farber 1974: 192-3; for Šikšabbum, ibid.: 181. See also Læssøe 1985: 182.

[88] Frayne 1999: 149, 169. Since the location of Šikšabbum fits that of modern Taqtaq or its surroundings much better than the identification proposed by Frayne, this should be reconsidered. Either Tikitiḫum was not identical with Taqtaq or the short-lived name Tikitiḫum was changed to Šikšabbum during the Ur III Period. For a discussion, see Ahmed 2012: 265ff.

[89] See Eidem and Læssøe 2001. The city is mentioned in letters 10-15 (from Šamšī-Adad to Kuwari), 39 and 42 (from Etellum to Kuwari), 47 (from Yadinum to Kuwari), and in the fragment 96 (sender unknown).

[90] Compare, for example, the letter of Etellum the general of Šamšī-Adad to Kuwari, the governor of Šušarrā, in which he mentions the "walled towns of the land of Aḫāzum;" 18) *ṣa-bu-um i-na qa-ti-ia ú-ul* [*i-ba-aš-ši*] 19) *ṣa-bu-um ša* 4-*šu i-na* BÀD.ḪÁ *š*[*a*] *m*[*a-at*] 20) *A-ḫa-zi-im i-ta-ad-du* 21) *ù iš-tu a-li-im ú-ul uṣ-ṣí*, "I have no troops available. The troops have been left in four (sections) in walled towns in the land of Aḫāzum and cannot leave the town(s), (since) they hold the towns," Eidem and Læssøe 2001: 111-3, letter no. 42 = SH 859 + 881.

[91] Cf. the letter 47 = SH 941 sent to Kuwari by Yadinum, Eidem and Læssøe 2001: 118.

Šurutḫum was also mentioned in the Shemshāra correspondence[92] and seems to have been located in the same region near and on the way to Utûm, probably in the gorge of Dukan.[93]

The Haladiny inscription of Iddi(n)-Sîn dedicates a section of his military campaigns to activities on this axis. The text seems to indicate that Iddi(n)-Sîn followed the same route as the Ur III campaigns.[94] The main goal of this campaign was to subdue Utuwe (later Utûm) in the Rāniya Plain, but he first had to destroy the lands and cities on the way. The text begins with the toponyms Tidluḫḫum, then Šikšambi (= OB Šikšabbum), which is followed by Iterašwe. All these are called "lands." At this point, three city names are mentioned directly after the third toponym Iterašwe. This indicates that the three cities were within the land of Iterašwe: Itu, Šaumme and Ḫub/nizagu.[95]

The conclusion is that the northern bank of the Lower Zab consisted of at least three lands or provinces, beginning from the west: Tidluḫḫum, Šikšabbum and Iterašwe on the eastern end, together with its three cities (fig. 28). Interesting in this regard is the mention of Itu as a city in this period, which can hardly be anything else than the Idu of the Middle and Neo-Assyrian periods and provides important evidence that Idu existed already in the first half of the second millennium BC.[96] However, it is noteworthy that the city is not mentioned in the Shemshāra correspondence, despite the involvement of this region in these events. Its closeness to Šikšabbum and its location upstream on the way to Šušarrā must have made it an important player. That it was not mentioned in the Shemshāra texts probably means either that it had not yet recovered from the destruction of Iddi(n)-Sîn or that it was known under another short-lived name given by the Amorite population that infiltrated the region during this period.[97]

Idu reappears again in the Middle Assyrian period under its old name, this time as a flourishing center and capital of its region. It even overshadowed Šikšabbum and gave its own name to the province.

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[92] Eidem and Læssøe 2001: 104-5, no. 41.

[93] Astour 1987: 36 and note 252. Astour refers to Gelb who was the first to identify this GN with *Ni-ri-pu-ni Šu-ru-tu-ḫa* (= The pass of Šurutuḫa) in an inscription of Šilḫak-Inšušinak of Elam (12th century BC). For the inscription, see König 1965: 132, no. 54a, §3.

[94] Ahmed 2012: 267 and 289.

[95] For the inscription, translation and commentary, cf. Ahmed 2012: 255ff.

[96] See also Ahmed 2010, no. 4.

[97] Note that the kingdom of Aḫāzum was ruled by the Amorite-named Yašub-Addu. This region, together with Qabrā to the southwest, also on the Lower Zab, was subject to Amorite infiltration, most probably during the later years of the Ur III Period. The Haladiny inscription relates the defeat of five Amorite *rabiānum*s at the hands of Iddi(n)-Sîn, when they tried to penetrate Simurrian territory. However, they seem to have been more successful on the Lower Zab axis, see Ahmed 2012: 258, 271f. The elders of the village of Satu Qala still remember Arab shepherds and small traders who used to come to Satu Qala from Pirdē (= Altün Kopri) and beyond along the Lower Zab for seasonal work and herding into the 1950s. This might provide a loose parallel to Amorite infiltration in the past.

CONVERSION TABLE: TEXT NUMBERS OF SQ 2011 AND EXCAVATION NUMBERS

Text numbers	Excavation numbers	Text numbers	Excavation numbers
SQ 11-T1	SQ 00000-301	SQ 11-T9	SQ 01053-302
SQ 11-T2	SQ 00000-304	SQ 11-T10	SQ 00000-302
SQ 11-T3	SQ 07002-301	SQ 11-T11	SQ 03138-301
SQ 11-T4	SQ 01043-301	SQ 11-T12	SQ 01066-303
SQ 11-T5	SQ 06009-301	SQ 11-T13	SQ 01066-302
SQ 11-T6	SQ 03113-301	SQ 11-T14	SQ 01064-301
SQ 11-T7	SQ 01039-301	SQ 11-T15	SQ 00000-303
SQ 11-T8	SQ 01040-301		

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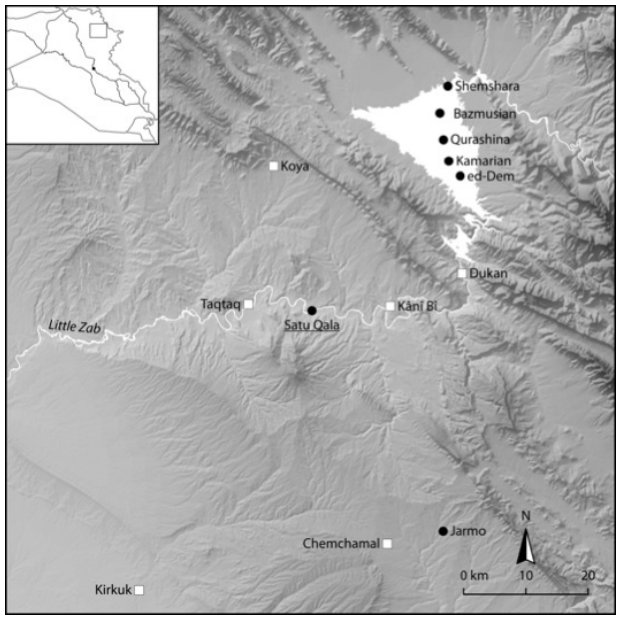


Fig. 1. Map of the region.

Fig. 2. Tell Satu Qala.

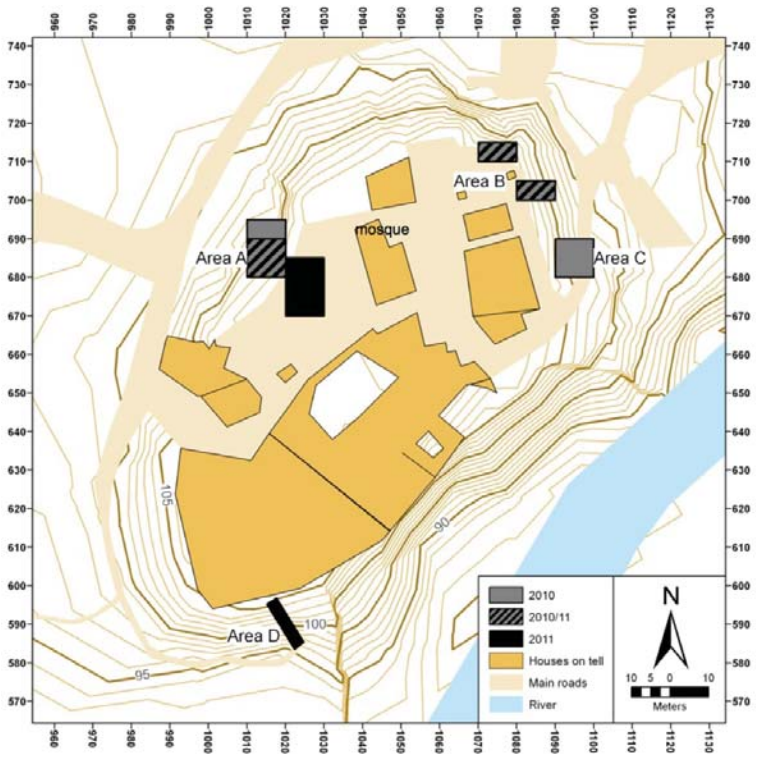


Fig. 3. Topographical map of Satu Qala.

Fig. 4. Glazed brick SQ 10-6 (measurements: 25.5 x 19.0 x 8.0 cm).

Fig. 5. Glazed brick SQ 10-10^{+} (measurements: 37.0 x 37.0 x 8.5 cm).

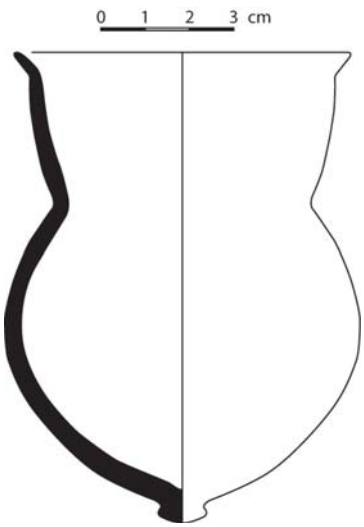


Fig. 6. Nipple beaker SQ 10-28.

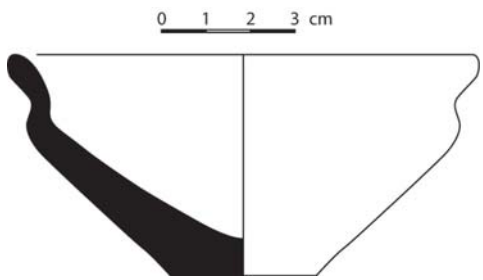


Fig. 7. Flat base bowl SQ 10-29.

Fig. 8. Operation A. Square 1020/680. Building 1.

Fig. 9. Clay model of a bed SQ 10-5.

Fig. 10. Operation A. Square 1020/680. L. 1018 facing north.

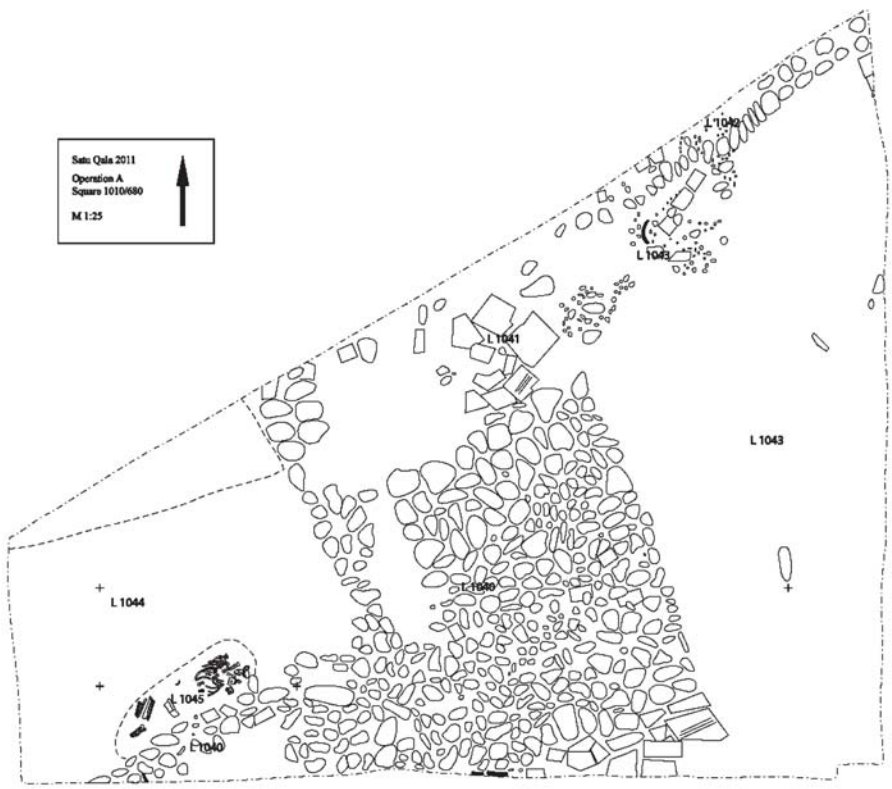


Fig. 11. Operation A. Square 1020/680. L. 1040.

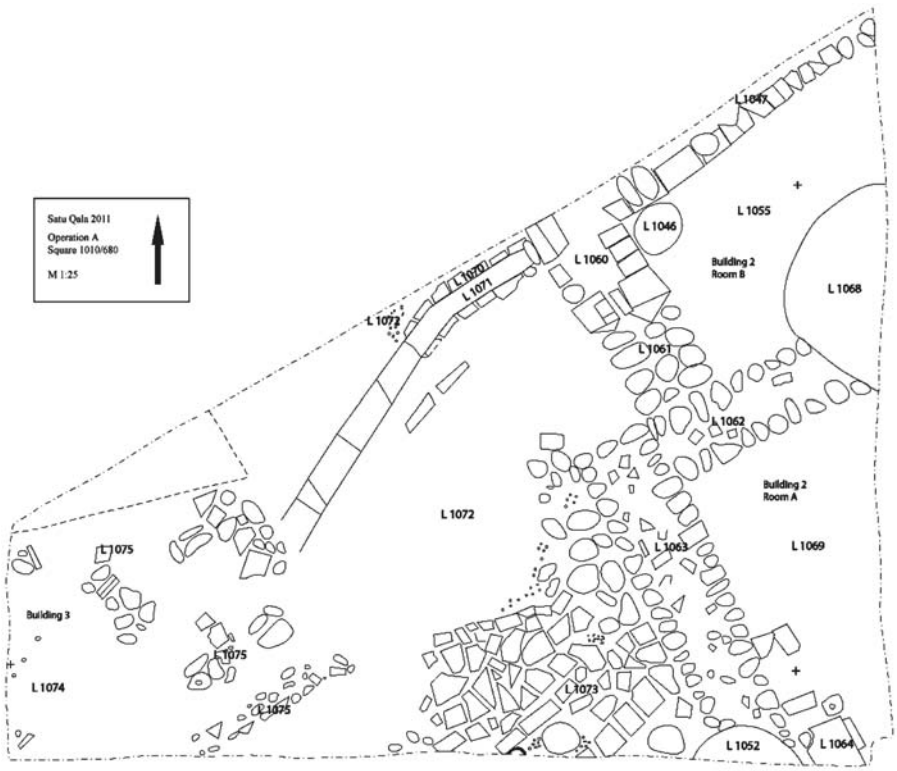


Fig. 12. Operation A. Square 1020/680. Building 2-3.

Fig. 13. Glazed brick T-shaped SQ 1047.303 (measurements: 21h x 41w x 6.3th cm) + 304 (measurements: 15 x 24.5 x 5.9 cm).

Fig. 14. Wall peg SQ 1064.301 = SQ 11-T14 (measurements: 20.5h x 15.5w x 2.0-4.6th cm).

Fig. 15. Cylinder seal SQ 1066.305 (measurements: 4.65h x 1.5d cm).

Fig. 16. Thymiaterion SQ 1066.301+304 (measurements: 18.7h x 17.0-13.5d cm).

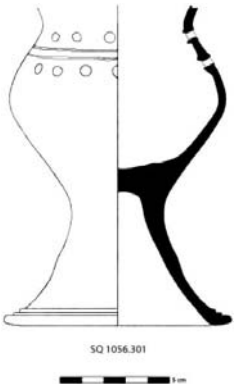


Fig. 17. Perforated globular goblet SQ 1056.301 (measurements: 14.5h x 10d cm).

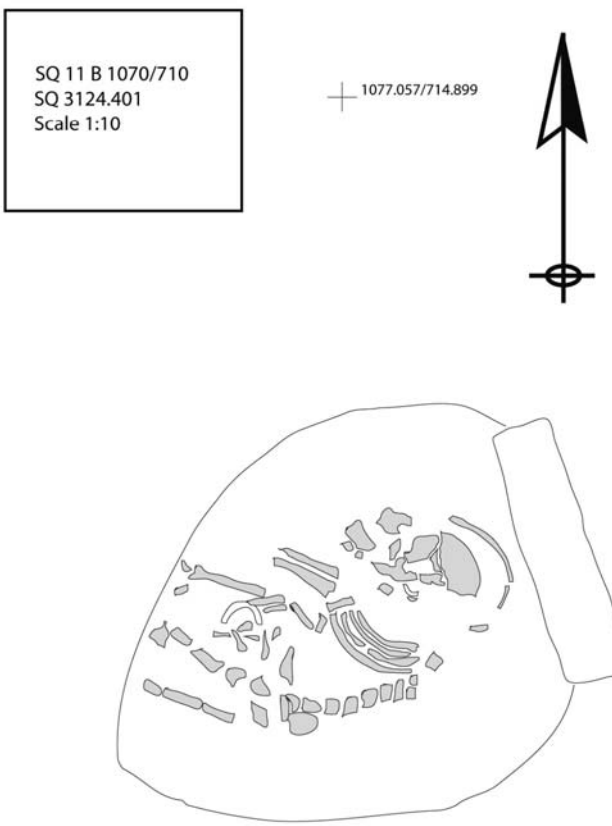


Fig. 18. Operation B. Square 1070/710. Burial SQ 3124.401.

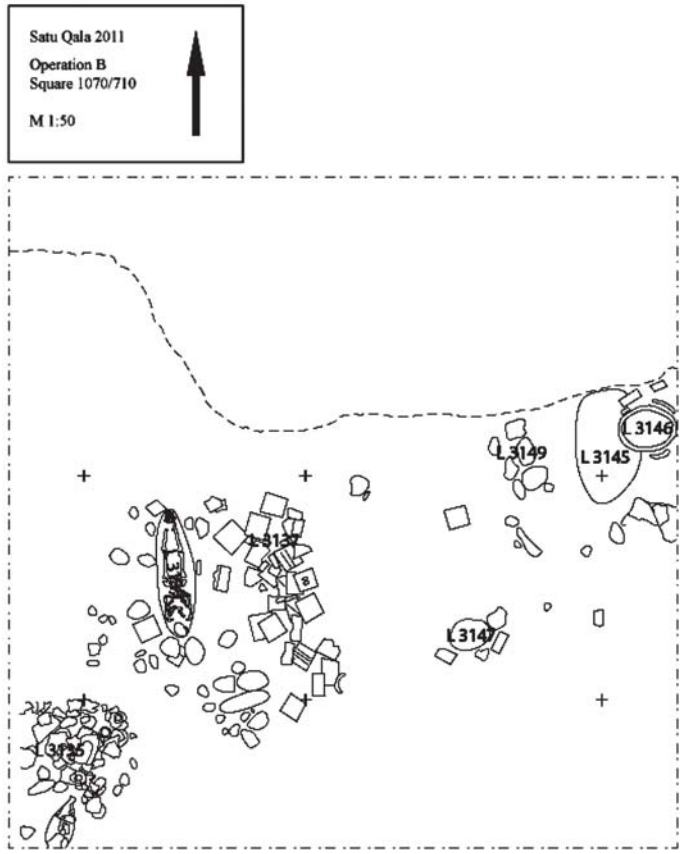


Fig. 19. Operation B. Square 1070/710. L. 3135 ; Burial SQ 3139.401.

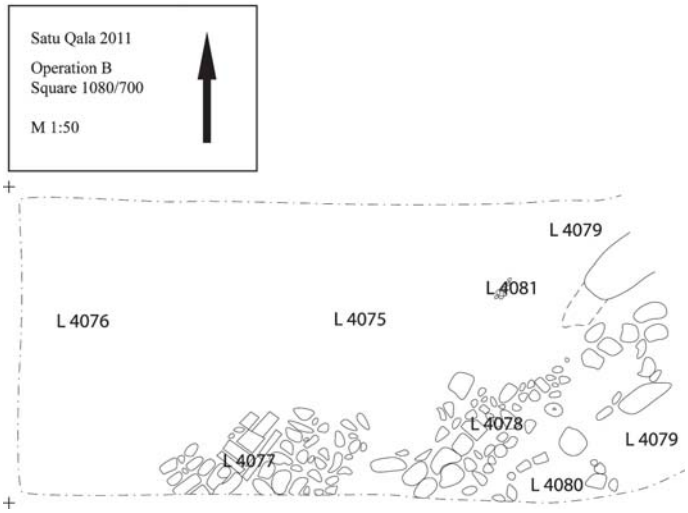


Fig. 20. Operation B. Square 1080/700. L. 4077; L. 4078. Drawing S. Kluitenberg; graphics M. Siebert.

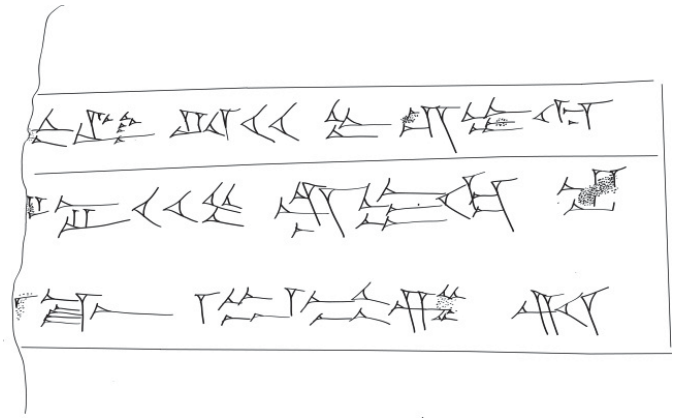


Fig. 21. Copy of SM 1068.

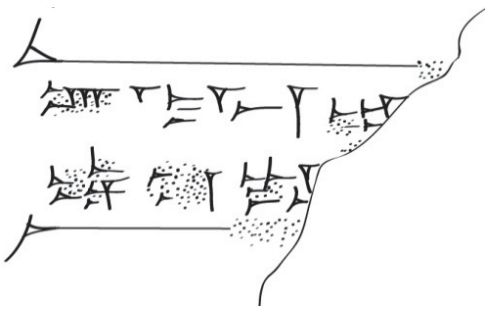


Fig. 22. Copy of SQ 10-3.

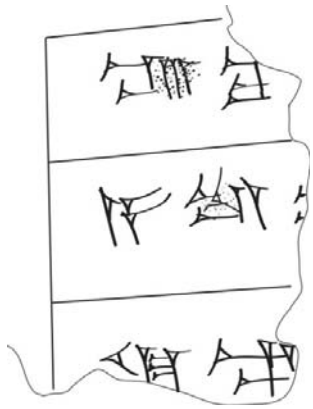


Fig. 23. Copy of Koya 3.

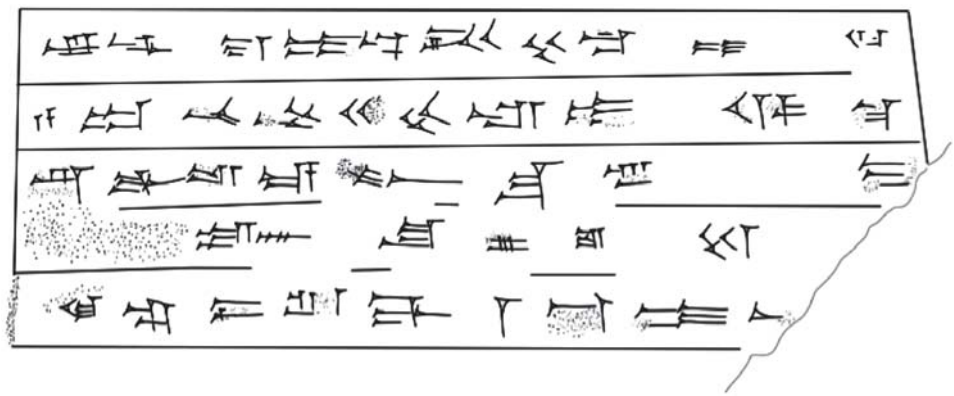


Fig. 24. Copy of SQ 10-9.

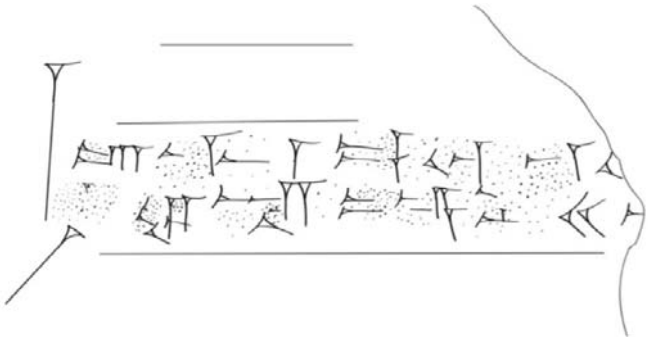


Fig. 25. Copy of SQ 11-T9.

Fig. 26. Copy of SQ 11-T14.

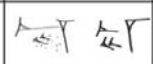
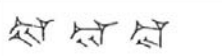
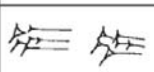
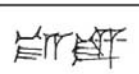
	Satu Qala	Text-Nr.	Tall Bdēri/ Tall Ṭābān
BA		SQ 11-12, 1; SM 3, 1	
KAM		SQ 11-[11], 1	Cf. form of ḪI: 
KÁM			
ŠA		SQ 11-[11], 3; SQ 11-12, 1	
NA		SQ 11-[1], 4	
KI		SQ 11-[13], 5;	

Fig. 27. Comparison of signs from Satu Qala and elsewhere.

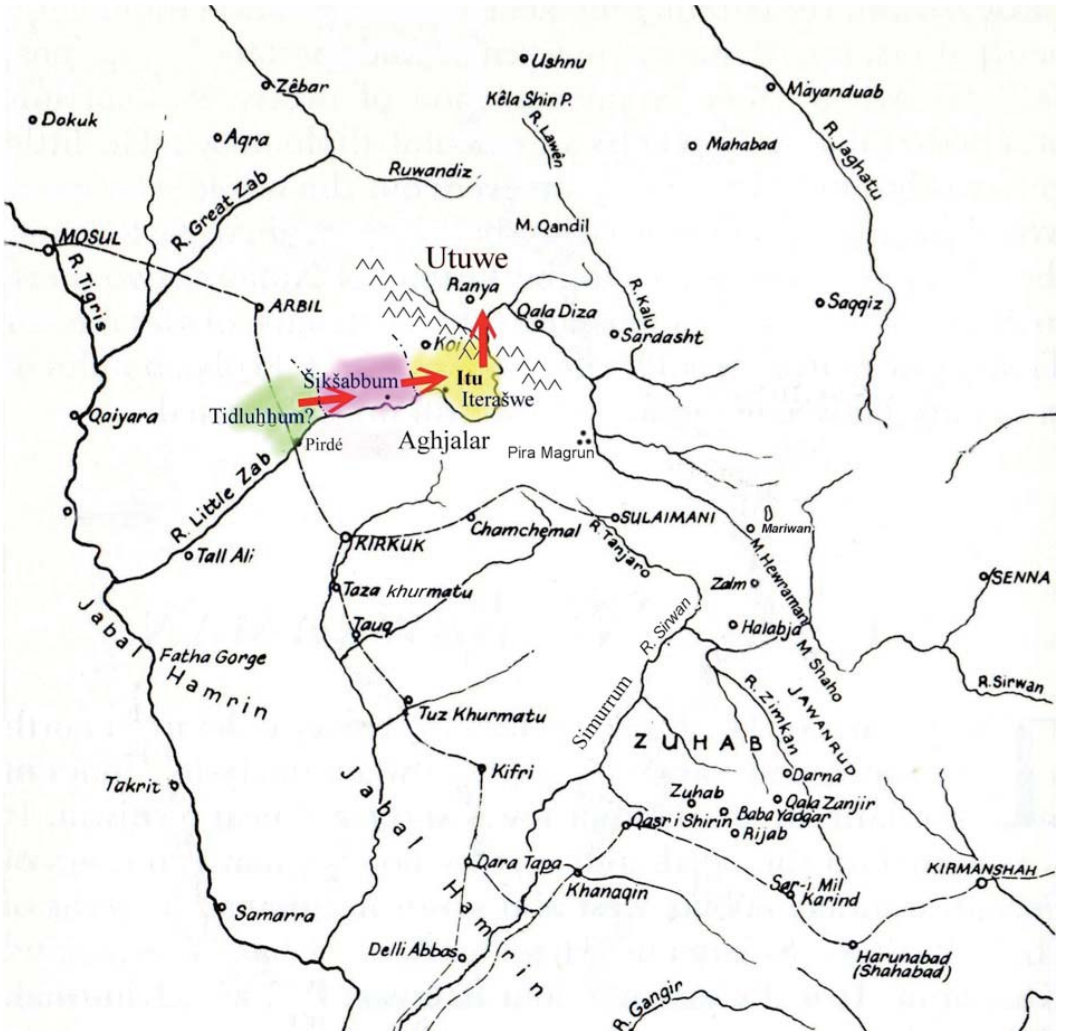


Fig. 28. The provincial divisions of the northern bank of the Lower Zab according to the Haladiny inscription.

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THE BRONZE AGE CEMETERY OF GÂVUR EVİ TEPESİ, SOUTHWESTERN TURKEY

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Abstract

During the 2011 Sagalassos project survey, a Bronze Age pithos cemetery was discovered in the vicinity of the multi-period site of Gâvur Evi Tepesi, in the Burdur Plain, SW Turkey. Despite ongoing quarrying of gravel at the cemetery, several in situ pithoi were found. The following paper is the first report of our work at this cemetery and discusses and contextualizes the findings at Gâvur Evi Tepesi. Furthermore it illustrates how the cemetery belongs to a more widespread tradition attested at similar contemporary cemeteries in Western Anatolia: the deceased were interred in pithoi closed with large stone slabs and oriented to the E/SE. A study of this cemetery suggests that it was used during the Early Bronze Age II (2600-2300 BC) and Middle Bronze Age (2000-1450 BC) since some pithos burials associated with fine ware from both periods were recovered. Six different pithos types were identified ranging from neck pithoi to rib pithoi. In addition, this paper considers the Gâvur Evi Tepesi cemetery and its settlement within the broader Early Bronze Age social landscape of the Burdur Plain. It is clear that in this period this plain witnessed an increase in human settlement density and the development of a distinct settlement pattern: multiple village-type settlements with discrete cemeteries, located close to water and agricultural land. Ultimately, the research in the Burdur Plain faced also problems with regard to the recognition and definition of local EB phases among which the EB III.

INTRODUCTION

The Early Bronze Age (3000-2000 BC, henceforward EBA) is seen as an important turning point in human history, which saw the emergence of significant developments such as social stratification, urbanization and increased metallurgy. These social and economic changes have been recognised in numerous publications (Yakar, 1984; Çevik, 2007; Steadman, 2011). In addition to these developments: a change occurred in the burial tradition in Western Anatolia during the EBA. The EBA is characterized by the appearance of numerous cemeteries and to this date more than 1000 EBA burials have been discovered. This large quantity of funerary data means that this burial tradition is particularly well-investigated in Western Anatolia and stands in stark contrast to funerary data from preceding and succeeding periods. Most notable is the uniformity in this EBA mortuary practice in Western Anatolia, which is exceptional and shows major differences with other neighbouring regions.

The first discoveries of EBA burials in Western Anatolia date back to the beginning of the last century with the excavations at the Yortan cemetery[2] (Kâmil, 1982),

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Kusura (Lamb, 1936) and Babaköy (Bittel and Steward, 1939). Nowadays, at least 20 EBA cemeteries have been excavated, such as Karataş-Semayük (Mellink, 1964), Göndürle Höyük (Öszait, 2003), Ilıpınar (Roodenberg, 2008) and Demircihöyük-Sarıket (Seeher, 2000). Some of these have revealed over 100 burials. While most of these cemeteries have been extensively published, only a few papers have assessed the EBA burial custom itself (Wheeler, 1970; Massa and Şahoğlu, 2011).

During an intensive survey in 2011 a cemetery similar to other EBA examples of this tradition was discovered in the Burdur Plain, SW Turkey by the archaeological survey team of the Sagalassos Archaeological Research Project. The cemetery is located in the northern part of the Burdur Plain, 300 m west of the site Gâvur Evi Tepesi (see map 1).[3] This paper aims to present the results of our work at the cemetery of Gâvur Evi Tepesi, to discuss and contextualize it and situate it more widely within the Bronze Age of the Burdur Plain.

THE EARLY BRONZE AGE BURIAL TRADITION

As stated above, in western Turkey excavated EBA cemeteries and their burials show great similarities. Cemeteries are located in the vicinity of settlements (i.e. extramural), as is also the modern tradition. Some EBA burials, however, were found in settlements, underneath courtyards and houses, as at Beyçesultan (Lloyd and Mellaart, 1962) and Aphrodisias-Pekmez (Joukowsky, 1986). The vast majority of EBA burials are pithos burials. Different types of pithoi were used to bury the deceased and there is also variation in how pithoi were closed off. Frequently closing is achieved by using a large slab or several stones, but occasionally other pots (e.g. jars and pithoi), usually placed mouth to mouth, are used, such as at Göndürle Höyük (Özsait, 2003), Küçükhöyük (Gürkan and Seeher, 1991) and Demircihöyük-Sarıket (Seeher, 2000). Currently no pattern in this variation has been observed. Pithos burials were laid out in rows and were most likely reused for a certain period of time since multiple interments within the same pithos have been discovered. This aspect of re-use suggests the use of grave markers of some sort that served to indicate the position of specific pithoi and thus enable their re-identification. This theory is also supported by an absence of overlap between burials, as is the case in the Ilıpınar cemetery (Roodenberg, 2008). Within pithoi the deceased were generally put in a foetal (hocker) position, lying on their side, with the arms folded in front of their face, their chest or sometimes behind their head, their knees pulled up and the head placed towards the east/southeast. People of all ages and sexes were buried and no clear association between the type of burial and the age and sex of the deceased has been discovered. However, it seems that newborns (< two months) were excluded from

[2] From 1900 to 1902, P. Gaudin excavated at Yortan, but he published his results only briefly in *1'Academie des Inscriptions et Belles-lettres*. The main publication on this cemetery is the BAR volume of Kâmil (1982) which is based on the excavations of Gaudin.

[3] Centre coordinates: 238555/4168430 (UTM 36).

these cemeteries and these are only encountered in the settlements themselves (Alpaslan Roodenberg, 2008: 353).

In addition to pithos burials, these EBA cemeteries also include cist burials and, less frequently, simple pit burials. The proportion presence of each of these three burial forms varies from cemetery to cemetery. For example, only a small number of cist graves were found at the cemeteries of Göndürle Höyük (Öszait, 2003) and Yortan (Kâmil, 1982), while none are known from Karataş-Semayük (Mellink, 1964). However, at other cemeteries, such as Area B of Kaklık Mevkii (Topbaş et al., 1998) or Küçükhöyük (Gürkan and Seeher, 1991), cist graves make up a considerable part of the known burials. The incidence of this mixed burial tradition peaks during the EB II period (2600-2300 BC), but is present already in EB I (3000-2600 BC), e.g. at Kusura (Lamb, 1936). Only a few cemeteries dating to the EB III (2300-2000 BC), e.g. Kaklık Mevkii (Topbaş et al., 1998), and/or the Middle Bronze Age (henceforward MBA, 2000-1450 BC) are known, such as Göndürle Höyük (Öszait, 2003) and Demircihöyük-Sarıket (Seeher, 2000).

THE BURDUR PLAIN SURVEY

The cemetery of Gâvur Evi Tepesi was discovered in 2011 during the second of three seasons of archaeological surveys undertaken in the Burdur Plain by the Sagalassos Archaeological Research Project. One of the major aims of this survey is to investigate Late Neolithic to Early Bronze Age remains in this area. While the excavations of Hacılar (Mellaart, 1970) and Kuruçay Höyük (Duru, 1994; 1996) have revealed a great deal of detailed information on these sites during these periods, relatively little is known about the relation between these excavated sites and their surroundings. By surveying this area intensively the survey project aims to get a more detailed understanding of what happened in the vicinity of these sites and to explore how they and other prehistoric inhabitants of this fertile valley interacted. Were these excavated sites the only settlements? If not, what form did other sites take? Is there evidence for isolated farms, hamlets or, other village communities equivalent to Hacılar and Kuruçay Höyük? Surveying took place in lines of 50 m in length with walkers observing strips of 1 m in width, spaced 20 m apart, whereby all artefacts were collected. This survey method has been carried out without modification in all surveyed areas and for all artefact density levels. The survey has been designed from a ‘non-site’ perspective meaning that no distinction was made between so-called ‘site’ and ‘off-site’ areas.

THE SETTLEMENT OF GÂVUR EVI TEPESI

The site of Gâvur Evi Tepesi, which translates as ‘the hill with the heathen house’, was already known before the Burdur Plain Survey began, having been first discovered by the Hacılar team (Lloyd and Mellaart, 1962). Subsequently it was further investigated in 1996 by the extensive archaeological survey of the Sagalassos Project conducted by M. Waelkens (Waelkens et al., 2000). The site, which occupies an area of around 1.9 ha, is located about 300 m to the east of the cemetery at the end of a low promontory that

extends from the hills bordering the Burdur Plain to the west. The promontory currently rises 14 m above the surrounding plain and offers wide views over the valley. Remains of a marsh, resulting from poor drainage of the Düğer Çayı, surround the site on all sides, except the west. When the Hacılar team explored the site, they reported remains from the EBA (Lloyd and Mellaart, 1962), while the Sagalassos extensive survey also identified pottery and wall remains from the Hellenistic, Roman Imperial and Ottoman periods (Waelkens et al., 2000). The Burdur Plain Survey found a significant quantity of sherds from the EB II period together with a fragment of a polished EBA axe. In addition to the periods documented by the extensive survey, a small number of sherds was collected that can be dated to the MBA, including fragments of a beaked jar. This suggests that the site of Gâvur Evi Tepesi played a long-lasting role in the prehistoric settlement history of the Burdur Plain.

THE BRONZE AGE CEMETERY

The potential existence of a Bronze Age cemetery next to the settlement of Gâvur Evi Tepesi was first suspected during the extensive survey made by the Sagalassos project in 1996 when some pithos sherds were found at the gravel quarry (Waelkens et al., 2000). Over the years more remains of Bronze Age burials were exposed through ongoing activities in the quarry. Unfortunately, at the time of our visit (July 2011) the cemetery had been largely destroyed by the digging of three separate gravel pits (map 2 and fig. 1). Scattered pithos sherds and, to a lesser extent, fragments of fine ware were found at the surface. Our survey team did not collect all pithos remains visible on the surface, but rather focused on typologically diagnostic pottery that might contribute to a more complete documentation of the cemetery. While surveying the cemetery area, it became clear that pithos sherds were distributed all around the pits which would suggest that the size of the cemetery was at least 3 ha. However, it is possible that quarrying activities had broken up the graves and dispersed pithoi fragments over a larger area than originally occupied by the cemetery. The area that comprises the surviving pithoi is more or less 1 ha.

In situ features, consisting of 21 pithos holes originally belonging to this cemetery, were located on the edges of the pits, principally on the eastern slope of Pit 3 (map 2).[4] Almost all holes were empty as these pithoi had broken and fallen down the slope, but they could nonetheless be reconstructed with some accuracy. In total, eight pithos holes contained in situ pithos fragments, among which five still preserved a significant amount of the vessel [pithos nos. 4, 5 (fig. 2), 6, 9 and 11] and only one was complete (pithos no. 1, fig. 3). The altitude at which these pithoi were located varies between 902 and 904 m above sea level, approximately between 0,60 m and 2 m below the present surface. The in situ pithoi were broken but none had collapsed, a feature noticed at several other EBA cemeteries, e.g. at Demircihöyük-Sarıket (Seeher, 2000). Only pithos no. 1 was deformed due to the pressure of the overlying soil (fig. 3).

[4] See appendix for an overview of each pithos hole with the findings in their vicinity.

The pithoi were found in a pebble-rich layer (fig. 2 and 3), which the geomorphologists of the project interpreted as colluvium material from the nearby hills and not as river or lake sedimentation. This was indicated by the fact that the pebbles mainly consisted of the same type of limestone as the surrounding hills and were not rounded. No burials were found underneath this pebble layer. On top of the pebble layer a homogenous clay deposit was observed, which most likely represents a lake sediment as this kind of clay can only be deposited in near stationary water. In all likelihood these burials were dug in the lake sediments, but no traces of this activity have been found. However, it is possible that the water level of Lake Burdur fluctuated considerably in the last millennia, which caused the deposition of alternate colluvium and lake deposits. The top part of the pit profiles is mainly disturbed by ground and waste from quarry pits, which have been recently dumped on it (fig. 1).

The Bronze Age burials

This investigation of surface deposits and in situ burials at Gâvur Evi Tepesi suggests that only ceramic containers were used for inhumations here. No other burial types were recognised and thus, as yet, there are no indications of a mixed-burial tradition at the cemetery. Three of the in situ pithoi were closed with large stone slabs: pithos 5 (fig. 2), 6 and 11. In the vicinity of the other pithos holes the presence of further large flat stones was recorded and these most probably had also served as covering stones prior to their disturbance. No other types of pithos burial were documented. The openings of the *in situ* pithoi were all oriented east-southeast and were not placed horizontally but with a small inclination of the mouth towards the surface, a position which probably facilitated the deposition of the deceased into the pithos.

Six different pithos types were attested at the cemetery. Based upon the pithos typology and the associated fine ware, the cemetery can clearly be dated to the EBA and the MBA. It seems that these different phases have made use of different locations within the cemetery. Whereas the EBA finds were mainly located in Pit 2 and 3, the MBA finds were situated in Pit 1 and 2. However, this is a preliminary observation and one should not under-estimate the role of post-depositional processes. The presence of MBA pottery is notable because hitherto no material of this date was known from the territory of classical Sagalassos (Van Haverbeke and Waelkens, 2003; Kaptijn et al., 2012; Vandam et al., in press). A comparison with other West Anatolian Bronze Age cemeteries, allowed dating three pithos types to the EBA and two others to the MBA. Unfortunately, no statistical information can be given on the frequency of these pithos types, but it was clear in the field that the EBA pithos types occurred more frequently.

The most common pithos fragments belonged to pithos types 1 and 2 (fig. 4.1 and 4.2). Both types could be identified as necked pithoi. A comparison with other Bronze Age cemeteries suggests that necked pithoi are characteristic of the EB II period. Pithos type 1 possesses a distinct neck with a rounded, everted flaring rim together with large flat rectangular handles with raised edges. This pithos type is associated with a soft black fabric which is shell tempered and contains voids that testify to the original presence of coarse shell material and organic material. Only one disc base (fig. 5.1) was found in this

fabric, but this does not exclude the presence of other types of bases. This pithos type is known from EB II graves from Demircihöyük-Sarıket (Seeher, 2000: 48, 176), Küçükhöyük (Gürkan and Seeher, 1991: 47), Ilıpınar (Roodenberg, 2008: 341) and Karataş-Semayük (Mellink, 1964: plate 66). Pithos type 2 (fig. 4.2) has a less pronounced neck as the rim is more vertical than type 1. Handles are attached with plugs underneath the rim and are rounded in profile. The walls of type 2 are generally thinner than type 1. Most of the fragments have a reddish finer fabric and is rather similar to the fabric of pithos 1 but contains less shell temper but more organic temper and calcite, quartz, biotite and feldspar. A flat base with concave walls (fig. 5.3) was also noted in this fabric. However no parallels for this pithos type were found at other Bronze Age cemeteries, which leaves the typological dating of this type uncertain. Nevertheless, an EBA date seems likely because of its technological characteristics, particularly the similarity in fabric and production (see below) with pithos type 1. The third pithos type differs from the others as it is smaller and has a small neck with a round/globular lower body and most likely a round base (fig. 2). This type occurs infrequently at the Gâvur Evi Tepesi cemetery and can be compared to EBA pithos types that are known from Küçükhöyük (Gürkan and Seeher, 1991: 45) and Yortan (Kâmil, 1982: fig. 12). The question remains, however, how these different pithos types should be interpreted, as it is possible that they indicate either social or chronological differences within the EBA.

No decoration in the form of a slip or paint was found on any of these EBA pithoi, a characteristic shared with pithoi from other EBA cemeteries. At Gâvur Evi Tepesi, the surfaces of the EBA pithoi were usually smoothed and in a few cases decorated with finger impressions (fig. 6). Such impressed decoration also occurs on EB II pithoi from the cemetery of Göndürle Höyük (M. Öszait pers. comm. during his visit in August 2011). The three EBA pithoi types from Gâvur Evi Tepesi are handmade and do not show any signs of wheel fashioning or throwing. A study of pithos fragments suggests that these EBA pithoi were manufactured using slab-building (fig. 7, fig 4.3). Most of pithoi had fragmented at the joints between slabs and it would appear that the body of the pithos was built up in overlapping sections of slabs, where the upper part of a slab fits the lower part of another slab. Fingernail impressions were found on the lower slab (fig. 7). The joints between the slabs are not visible on the finished pithoi, but only where the section has broken. The thickness of the fragments (up to 3 cm) was achieved by layering different slabs onto each other.

The MBA pithoi differ in many ways from the EBA ones. Most of the collected MBA pithos fragments could be categorized as pithos type 4 (fig. 4.5). This pithos type is characterized by its vertical to inverted rim, which was folded horizontally. The handle associated with this pithos type 4 is horseshoe-shaped with a thumb impression in the middle. The handle was fully attached to the pithos body and would have functioned more as a handgrip or merely as decoration. The fabric is harder than the others, well-sorted and well-processed. There is no noticeable organic or shell tempering and only a small amount of grit, containing quartz, limestone and chert inclusions. Almost all MBA pithos fragments contained traces of a high quality red slip, even though in some cases it was only visible once a thin, persistent deposit of chalk on the sherds had been removed by water with 12% HNO_3. Applied decorative bands are also present on pithos bodies;

however, these did not contain any (linear) decorative element, as is the case at other contemporaneous cemeteries. Pithos type 4 is similar to the MBA pithoi known from Demircihöyük-Sarıket (Seeher, 2000: 220) and Göndürle Höyük (Öszait, 2003: 100), whereby at the latter site it has been dated to the beginning of the MBA. The second pithos type, which can be dated to the MBA, is the so-called ribbed pithos[5] (fig. 4.4), which is also known from the Demircihöyük-Sarıket cemetery (Seeher, 2000: 219), from Karataş-Semayük (Mellink, 1967: plate 78) and even from Gordion (Gunter, 1991: 497-498). As the name suggests, this pithos type is decorated with a series of applied bands. Only a few fragments of this type were found, but they show a close resemblance to pithos type 4, as the rim and fabric are rather similar. Fragments of the ribbed-pithos are also slipped, but using a darker reddish slip than pithos type 4. In addition to differences in typology between the EBA and MBA pithoi, there is also an important technological difference, as all MBA pithos fragments show evidence for the use of a turntable. The last type of pithos (fig. 4.3) that was found during the survey is characterized by an inverted rim, similar to a hole-mouth jar. Although the chronology of this type remains uncertain, its resemblance to the EBA pithoi suggests that an EBA date is most logical. Specific features of this pithos type are their squared rim profile, the rectangular flat handle with raised edges and traces of slip on both interior and exterior. The slip is of poor quality and is reddish on the interior, but reddish-brown on the exterior. The fabric is similar to the one associated with pithos type 2. The collected fragments of this jar type show that they were also produced with the slab building technique (see above).

Furthermore, several fine ware sherds were present at the Gâvur Evi Tepesi cemetery. These have been interpreted as grave goods on the basis of burial practices at other contemporaneous sites in Western Anatolia, where a distinction can be made between the personal belongings of the deceased (pins and brooches) and offered items (e.g. pottery) (Roodenberg, 2008). At the Gâvur Evi Tepesi cemetery only pottery fragments were found. Whereas at other Bronze Age cemeteries mainly pitchers and jugs were found, bowls were most frequently attested at Gâvur Evi Tepesi. Bowl type 1 (fig. 5.4) is a common handmade bowl shape at the cemetery. A few bowls of this type have a tubular lug underneath the rim or a knob decoration which is characteristic for the EB II phase of Beyçesultan (Lloyd and Mellaart, 1962: 135, 144). The bases of this bowl are mainly rounded or have a low pedestal, the latter introduced during the EB II at Beyçesultan (Lloyd and Mellaart, 1962: 141) and found in EB II graves at Demircihöyük-Sarıket (Seeher, 2000: 113, grave 13). The fine grained fabric of the bowl is characterized by numerous voids which is a result of the original presence of organic material. The colour of the fabric varies from red to grey. The bowl is part of a ware group which occurs frequently at Gâvur Evi Tepesi and other EBA sites in the Burdur Plain (Umurtak and Duru, 2012; Kaptijn et al., 2012). The bowl shape itself is too general to draw conclusions about the dating, but the fact that it is handmade, chaff-tempered, red slipped and has features like a pedestal, tubular lug and knobs, suggests an EBA II dating. Bowl type 2, forms a sharp contrast with bowl type 1 as it shows clear marks of wheel throwing

[5] Ribbed-pithos after the German term *Ribbenpithos* used by the Demitcihöyük-Sariket team.

and has a very fine, high quality orange-brown wash (fig. 5.5 and 8). The fabric is fine, well sorted and small sized quartz and feldspar are the main inclusions. The bowl type is thin-walled with a slightly inverted rim and has a flat, string-cut bottom. An almost complete bowl was found in front of pithos 1 (fig. 5.5 and 8). This bowl type lacks close parallels from published Bronze Age cemeteries. However, at the excavated settlement of Beyçesultan (Lloyd and Mellaart, 1965: 92, 108, 134) a comparable bowl was found in level V-IV, in which inverted rims were more common than in later levels. The bowl type seems to have been present during EB III (Lloyd and Mellaart, 1965: 224), although differences in the described fabric and decoration with bowl type 2 favours a MBA date.

Only a few jug, jar and pitcher fragments have been found (e.g. fig. 5.6). One fragment could be identified as part of a pitcher, although the spout is missing. The presence of a handle on the rim, however, makes it more likely that this vessel part belonged to a pitcher rather than to a jar. The grey vessel fragment is burnished on the outside and incised on the lower part of the neck. The fabric is similar to the fabric of bowl type 1, which suggest synchronicity. Similar fragments have frequently been found in the EB II phase of the Demircihöyük-Sarıket cemetery (Seeher, 2000: 136-164), at Küçükhöyük (Gürkan and Seeher, 1991: 61, 63) and at Ilıpınar (Roodenberg, 2008: 344), although at this last site the vessels have a smaller diameter. In addition, several twisted handles could be documented at the Gâvur Evi Tepesi cemetery. These handles are an EB II feature and in all likelihood stemmed from larger jars and bowls as can be seen at Beyçesultan (Lloyd and Mellaart, 1962: 144-148). Beside several MBA bowl fragments only one possible small MBA jug fragment was found (fig. 5.2). The fragment shares a number of characteristics with the MBA bowl type: it has a similar fabric, an orange-brown wash and is wheel-thrown. The presence of a pierced lug handle seems to be common during the MBA, as is the case with jugs found at the Demircihöyük-Sarıket cemetery (Seeher, 2000: 209, grave 130) and at Beyçesultan (Lloyd and Mellaart, 1965: 137).

To summarise, our investigation of the Gâvur Evi Tepesi pithos cemetery revealed that it was used during the EBA (certainly the EB II) and the MBA. However, the different pithos types may reflect a chronological development within these periods. Mortuary practice at the cemetery shows a close similarity with other EBA and MBA cemeteries in Western Anatolia. Remarkable, however, is the presence of only pithos burials, whereas in other cemeteries cist and pit burials were found as well.

Human Remains

No undisturbed bone material was found inside the broken pithoi and therefore no direct information on the placement of bodies could be gained. However, in front of the pithoi a few fragments of large bones were preserved, and, in the case of MBA pithos no. 1, several skull fragments were discovered. From these surviving bone fragments samples were taken for C-14 dating and DNA analyses. Unfortunately, however, the condition of the fragments proved too poor to preserve collagen proteins and thus no C-14 dating or DNA analyses were possible.

THE EARLY BRONZE AGE IN THE BURDUR PLAIN

The Gâvur Evi Tepesi cemetery is located in the Burdur Plain, which is one of the few regions in SW Anatolia that has been systematically investigated by archaeologists over several decades. The ongoing excavations at Hacılar Büyük Höyük (Umurtak and Duru, 2012), the past excavations at Hacılar (Mellaart, 1970) and Kuruçay (Duru, 1994; 1996), the surveys conducted by the team of M. Oszait (1991) and by our survey project (Waelkens et al., 2000, Kaptijn et al., 2012) have produced a large body of data on prehistoric life in the Burdur Plain. During the EBA the landscape in the plain appears to have been densely occupied with more than eight sites located within an area of 15 by 10 km (map 1). Seven of these sites have an EB II occupation phase as the material culture shows great resemblances with the one from Beçesultan levels XVI-XIII. Although absolute synchronicity of sites cannot be attested via the relative dating of archaeological survey material, the fact that identical pottery fabrics were used at all these sites would support synchronicity. In this respect, it is also important to notice that as the cemetery at Gâvur Evi Tepesi shows; at least some of these settlements were inhabited during a rather long time span. One site, Field 258, has a different date than the other EB II sites, since none of the otherwise highly typical red-slipped ware and several common EB II shapes were lacking. In all likelihood, this site can be dated to EB I or early EB II. With regard to the environmental context of the EBA settlements various similarities can be noticed. The sites are all located on the valley plain, often close to the edge of the plain near the surrounding hills. There is also a clear preference for locations in the vicinity of sources of fresh water, such as springs and rivers, as well as fertile land. This leads to the conclusion that these locations were specifically chosen for agricultural purposes.

In addition to the eight known EBA sites and the Gâvur Evi cemetery, another pithos cemetery was found to the west of the modern village of Düğer (map 1). This cemetery was discovered at a modern brick factory and has been investigated by the Burdur Museum. A revisit by our team noted that some pithoi were still in situ and based upon their fabric and associated fine ware this cemetery may also be dated to the EBA and MBA. A third concentration of pithos fragments, which was found on the western side of the river Düğer Çayı, south of Düğer (map 1), contains fabrics similar to the Gâvur Evi Tepesi cemetery. Whether these pithos sherds can be interpreted as a cemetery is currently uncertain as no in situ pithoi in a burial context were found. However, a settlement, which may have belonged to this ‘cemetery’ was found during the Sagalassos survey of 2010 (Kaptijn et al., 2012) 200 meters to the east and on the opposite side of the Düger Çayı. Also worth mentioning in this context is the pithos cemetery that Mellink (1969) discovered near Lake Yarışlı Lake, just outside the Burdur Plain; however in this case an associated settlement has not yet been discovered.

The EB II pattern of density forms a sharp contrast to the apparently very scarce presence of MBA sites in the Burdur Plain, a phenomenon that can also be witnessed in neighbouring regions of SW Turkey. In the case of the Burdur Plain, a visibility problem for MBA sites seems unlikely, not only because earlier surface sites have been discovered in the plain and because the characteristics of local MBA material are known thanks to

their discovery at the Gâvur Evi Tepesi cemetery. Next to Gâvur Evi Tepesi only one site, Düğer S, with a possible cemetery, yielded a few MBA ceramics.

This brief overview of the newly discovered Bronze Age sites illustrates the lack of EB III finds in the Burdur Plain, which is particularly interesting if we take the Gâvur Evi Tepesi cemetery into account, where EB II and MBA phases have been identified. If there had been continuity at the cemetery, then EB III material should be present among our collected material and perhaps was not identified as such. Alternatively EB III graves could also have been destroyed during the quarry works, although material of this date would then have been revealed, dispersed and thus would be likely to form part of our sample. In all likelihood, we are dealing with a visibility problem for the EB III in this area of Turkey, as only a few EB III sequences are known (Düring, 2011). The nearest excavation with a sequence dated to the EB III is that of Beyçesultan, where only a small area with EBA III buildings was excavated (Lloyd and Mellaart, 1965). Although a hiatus between the late EB II and the EB III occurred there, there is clear typological continuity in its ceramic assemblage, which makes a long hiatus rather unlikely. This lack of EB III finds is not only limited to the Burdur Region but applies also to western Anatolia at large. A similar observation can be made with regard to cemeteries, which are mainly dated to the EB II. Only two cemeteries, Bakla Tepe (Şahoğlu, 2008) and Kaklık Mevkii (Topbaş et al., 1998), illustrate a continuation into the EB III. One gets the impression that in archeological terms EB II is most recognisable period and therefore most discussed, whereas other phases, such as the EB III are poorly defined. Similar conclusions can be drawn for the EB I in the Burdur Region. Only recently, with the excavation of Hacılar II (Hacılar Büyük Höyük), stratified EB I material has been discovered in the Burdur Plain (Umurtak and Duru, 2012). According to the excavators the material under discussion is very similar to the latest Late Chalcolithic phases of Kuruçay Höyük, but radiocarbon dating on burned barley found inside several jars proves that this material should be dated around 3010 and 2890 BC, that is to the first centuries of EB I (Umurtak and Duru, 2012 and pers. comm.). All of this illustrates the still preliminary nature of our understanding of local EB phases in the Burdur Plain. Clearly there is an urgent need for well-dated sequences of EBA phases, which eventually can be used to produce a more secure relative phasing of the EBA. It is only by addressing also what is missing in the current archaeological record, that these recognition problems become clear.

PERSPECTIVES

The paper presented above was the result of our first work on the cemetery of Gâvur Evi Tepesi, but further research remains necessary. First of all, the poor condition of the cemetery and the ongoing threat from quarrying makes a rescue excavation highly advisable. The main goals of this excavation should be to recover more detailed contextual information from the cemetery and to shed further light on its mortuary practices. The excavation should be preceded by a geomorphological and geophysical survey to determine which areas are undisturbed and worthwhile to excavate. Finally, artefactual characterisation, including integrated macroscopic and petrographic analysis

of fabric and the provenance of its material, should be conducted in order to gain further information on local, regional and interregional exchange networks in the Early and Middle Bronze Age.

CONCLUSIONS

The Bronze Age pithos cemetery discovered during the 2011 survey of the Sagalassos Project near the site of Gâvur Evi Tepesi is the first cemetery of this type known in what later would become the territory of Sagalassos, even though this type of cemetery is well attested in western Turkey. Although the gravel quarry had destroyed most of the cemetery, the *in situ* remains revealed that this cemetery showed the same tradition as attested at similar cemeteries in the region. However, apart from pithos burials no other burials forms were discovered. The six pithos types that were identified ranged in date between the EB II and the MBA. The presence of MBA findings is unique in the Burdur Plain and suggests that activity on Gâvur Evi Tepesi and the use of this cemetery endured over a long period of time. An attempt to reconstruct the EBA settlement landscape based upon the results of the Sagalassos survey project and other research prior to the latter indicates that the Burdur Plain was characterised by the presence of multiple village-type settlements with cemeteries, located close to water and agricultural land. This research has also emphasized ongoing issues regarding the definition and recognition of local EB phases, notably EB I and III, in the Burdur Plain.

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APPENDIX

The following is an overview of each pithos hole and the finds collected in its vicinity and mainly down-slope. One must keep in mind that some of the find clusters associated with pithos holes may have been subsequently disturbed and mixed. All other finds were collected on the surface and are thus lack a secure context.

Pithos 1: Pit 1, in situ pithos (fig. 4), related to pithos type 4. Traces of red slip (on pithos) as well as turntable marks. Pithos is SE orientated. Covering slab found lower down the slope. Small finds: two MBA bowl fragments type 2 (fig. 7.6-10), 1 MBA jug (fig. 7.2). Several bone and skull fragments were discovered in front of and inside the pithos.

Pithos 2: Pit 2, no in situ pithos and no fragments found on the slope.

Pithos 3: Pit 2, no in situ pithos and no fragments found on the slope.

Pithos 4: Pit 3, in situ pithos body fragments. Rim fragments were collected downwards on the slope, pithos type 1. No small finds were found near the pithos hole.

Pithos 5: Pit 3, in situ pithos, pithos type 3 (fig. 3). The pithos is E-SE orientated and closed with a slap. No small finds were found near the pithos hole.

Pithos 6: Pit 3, in situ pithos body fragments, covering slab fallen into the pithos. The fabric is similar to pithos type 1. No small finds were found near the pithos hole.

Pithos 7: Pit 3, no in situ pithos fragments. Rim fragments, two large rectangular handles and several body fragments were collected down-slope. The pithos fragments were categorized as pithos type 1. Small finds: fragment of red slipped bowl (type 1).

Pithos 8: Pit 3, in situ pithos body fragments. Rim collected downwards on the slope. Fabric and rim suggest pithos type 2. Small finds: pitcher fragment (fig. 7.6).

Pithos 9: Pit 3, in situ pithos body fragments. Fabric is similar to pithos type 1.

Pithos 10: Pit 3, in situ pithos body fragments. Rim fragments collected down-slope. Pithos type 2 (fig. 9). Several bone fragments were found on the slope below Pithos 10.

Pithos 11: Pit 1, in situ pithos type 4 (fig. 5 and fig. 6.5), large body fragments with decorative bands and turntable marks were found nearby the in situ pithos. The pithos is E-SE orientated, closed with a slab.

Pithos 12: Pit 3, no in situ pithos. Fragments of different pithoi were found below, among which pithos type 6 (fig. 6.3).

Pithos 13: Pit 3, no in situ pithos and no fragments found on the slope.

Pithos 14: Pit 3, no in situ pithos. Several fragments of different pithos types were found on the slope below pithos 14 as well as several bone fragments .

Pithos 15: Pit 3, no in situ pithos and no fragments found on the slope.

Pithos 16: Pit 3, no in situ pithos. Fragments of three different pithos types, among which pithos type 1 and 2 were collected down-slope. In addition also one disc base (fig. 7.1) was found.

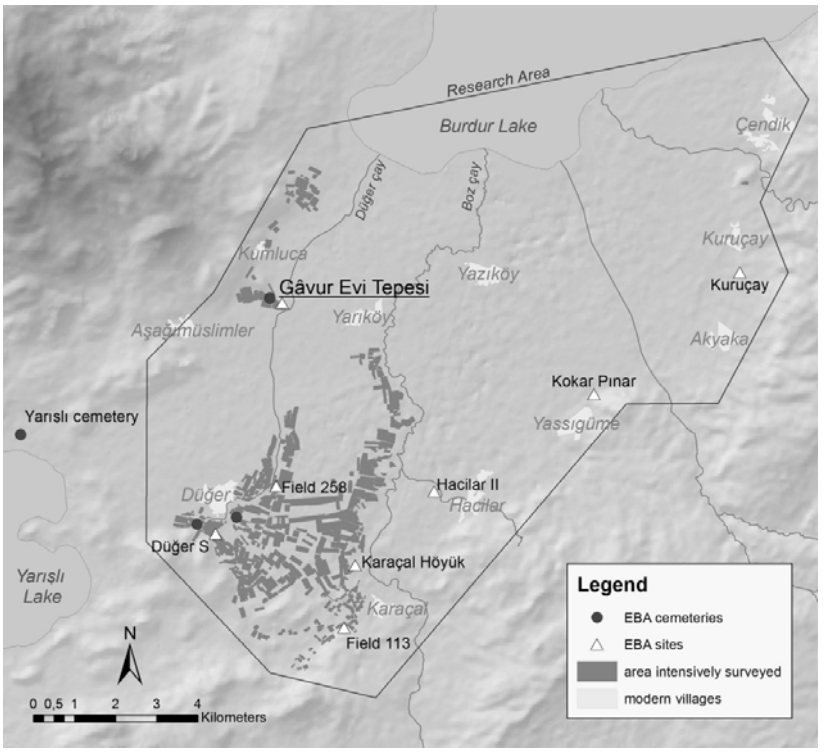
Pithos 17: Pit 3, no in situ pithos. Fragments of pithos type 1 and 2 were found down the slope.

Pithos 18: Pit 3, no in situ pithos. Different pithos fragments were found below the hole of pithos 18. Small finds: bowl/jug fragment with handle plug through the body.

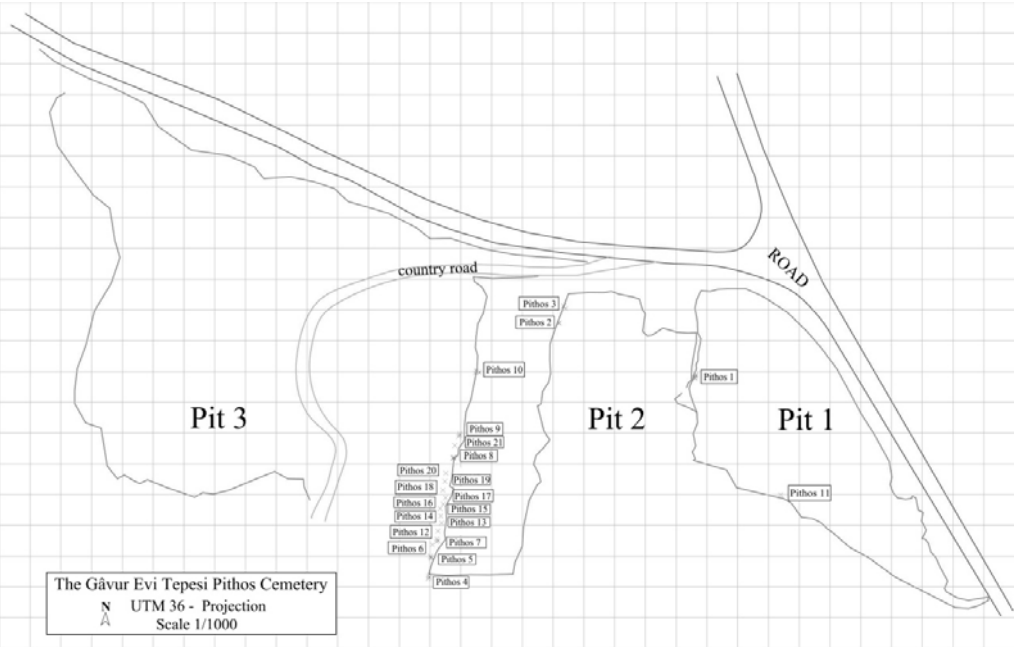
Pithos 19: Pit 3, no in situ pithos. Rim, base and body fragments were found down the slope. The fragments were categorized as pithos type 2. Small finds: two bowl type 1 fragments (one with lug handle), one larger bowl similar to bowl type 1 and one inverted bowl.

Pithos 20: Pit 3, no in situ pithos. Rim, base (fig. 7.3) and body fragments were found down the slope and could be accurately reconstructed as pithos type 2 (fig. 2).

Pithos 21: Pit 3, no in situ pithos. Body fragments were collected down the slope and suggest a fabric similar to pithos type 1. Small finds: one red slipped bowl fragment with pedestal base and one bowl fragment type 1.



Map 1. Overview of the southern part of the Plain of Burdur.



Map 2. Overview of the Gâvur Evi Tepesi cemetery.

Fig. 1. View on the eastern edge of Pit 3.

Fig. 2. Pithos no. 5.

Fig. 3. Pithos no. 1.

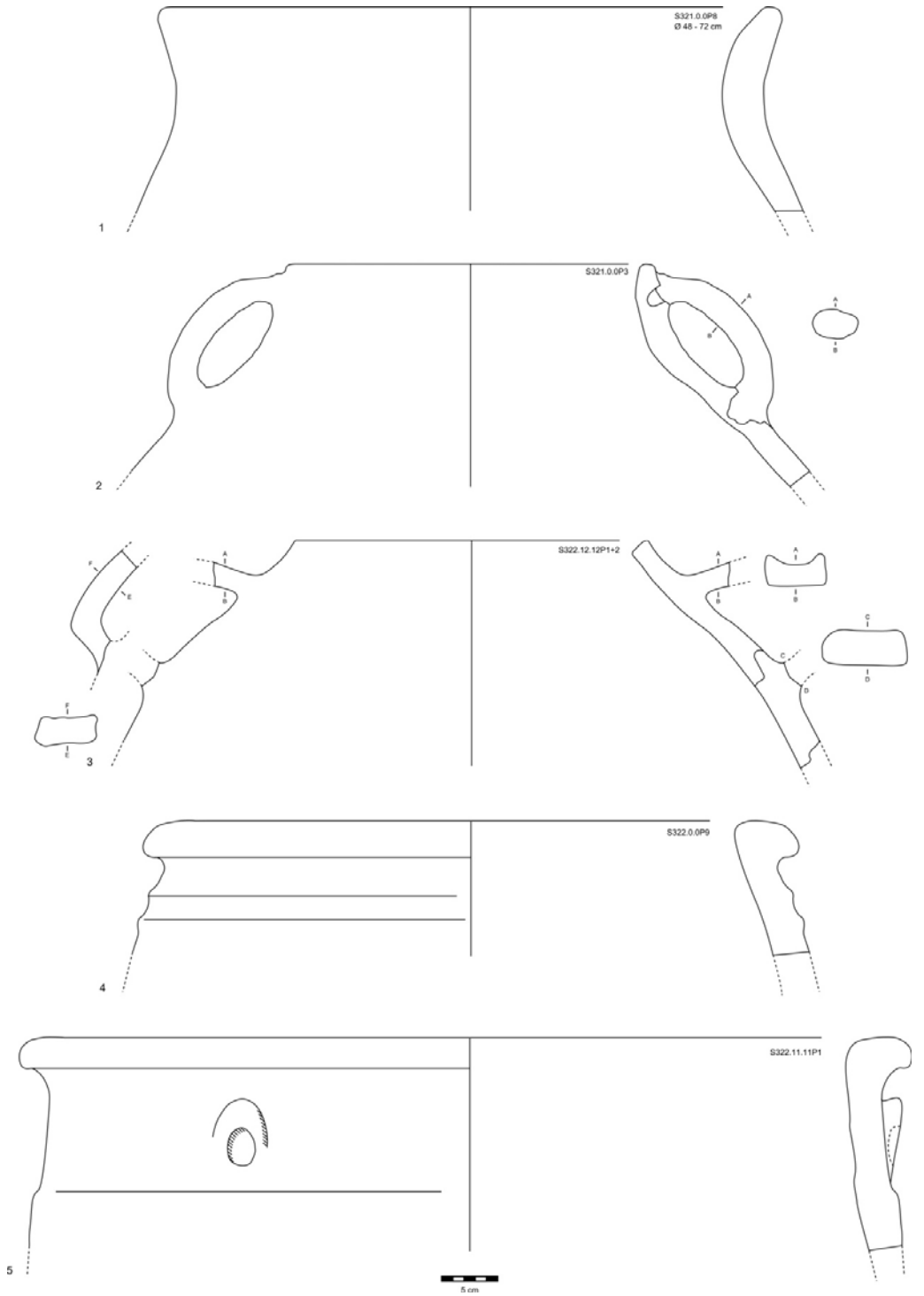


Fig. 4. The identified pithos types.

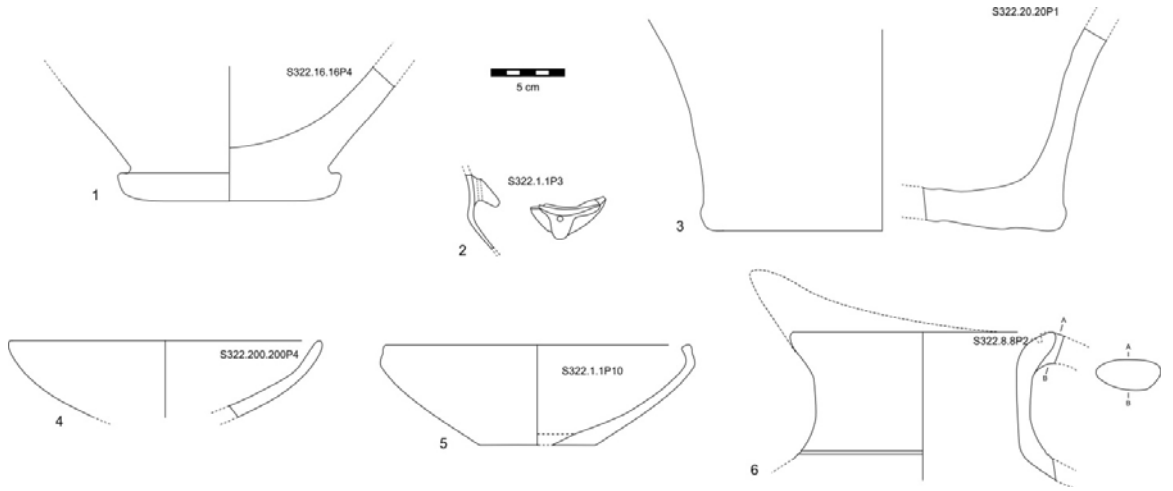


Fig. 5. Selection of pithos bases and grave goods.

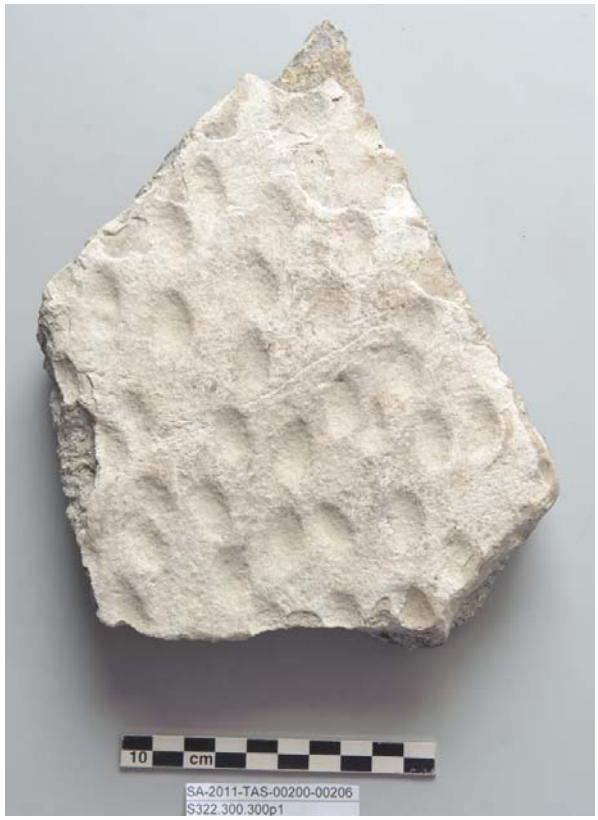


Fig. 6. Pithos sherd decorated with finger impressions.

Fig. 7. Example of the slab building technique.

Fig. 8. MBA bowl fragment, found in front of Pithos no. 1.

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EPIPALAEOLITHIC MARINE SHELL BEADS AT PINARBAŞI. Central Anatolia from an Eastern Mediterranean perspective

Emma Baysal[*]

Abstract

The Epipalaeolithic bead assemblage from Pınarbaşı in the Konya Plain provides a unique window on the use of beads in the earliest context yet known from Central Anatolia. The assemblage is largely associated with the inhumation of a single individual who was interred with a variety of possessions including marine shell beads, mostly Dentalium and Nassarius. This article examines the extensive assemblage of marine shell beads that was found in the limited exposure of Pınarbaşı's earliest levels, including the possible meaning of the objects to these early inhabitants of the Anatolian plateau in the light of similar discoveries in the Levant. Possible reasons for the longevity of long-distance procurement of marine shell – the tradition endured for thousands of years after its initial appearance – in both the Konya Plain and the Levant are discussed, and some of the changes in marine shell use during this period are examined.

INTRODUCTION

Beads are one of the earliest forms of personal and social expression, their use is seen from more than 40,000 BP at Üçağızlı Cave in Turkey (Kuhn et al. 2001: 7641) and from as early as 80,000 BP at sites in Morocco (Colonese et al. 2011: 90). An assemblage of beads found in the Epipalaeolithic levels of the site of Pınarbaşı in the Konya Plain in Central Anatolia (Figure 1) has contributed significantly to our understanding of some early expressions of identity. The evidence for human activity at Pınarbaşı is currently the earliest on the Konya Plain and has added a new dimension to our understanding of early activity on the Anatolian Plateau. Although the area excavated was small, the remains of a number of individuals were recovered, accompanied by a variety of personal possessions (Baird 2012: 186). 194 beads of different materials were recovered from the Epipalaeolithic deposits, including items of stone, bone and marine shell, and it is the latter, 188 items, that provide the main subject matter of this article. Although this marine shell assemblage is unique within the Konya Plain, it shows apparent parallels with contemporary use of the same shell species, particularly Dentalium, in ornamentation in broadly contemporary sites in the Levant. There are particularly strong parallels with Natufian burial assemblages from the southern Levant and I examine here the possible

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similarities between these assemblages of shells in their composition and use and explore the frequent employment of marine shells at sites far away from coastal material sources.

The use of marine shells continued in the Konya Plain area for many thousands of years after their initial appearance. The continued appeal of certain species of marine shells to populations ranging over huge geographic and temporal spans has been a considerable source of debate (Bar-Yosef 1991; Bar-Yosef Mayer 2005; Belfer-Cohen 1995; Colonese et al. 2011; Reese 1991). Pınarbaşı's Epipalaeolithic assemblage elucidates, for the first time, the antecedents of interactions and procurement practices that have previously been seen as part of the cultural milieu in Anatolia (Baysal forthcoming a and b; Reese 2005). There are distinctive and consistent diachronic changes in both the species preferences and their piercing and use. I discuss here the ways in which preferences seen in Anatolia change through time and also show diachronic consistency with those seen in the Levant, and explore the possible reasons for these choices.

In this article the Epipalaeolithic bead assemblage of Pınarbaşı is discussed within its broader geographical and temporal context, drawing comparisons with both contemporary assemblages from further afield and also from the later, 9th millennium cal BC, assemblages of Pınarbaşı and Boncuklu Höyük in the Konya Plain. The long-distance procurement of marine shells from the Epipalaeolithic onwards raises questions about the value that was attributed to them, whether in terms of wealth or social prestige, and indicates that the networks or methods by which they arrived in the Konya Plain were stable and long-lived.

PINARBAŞI

The Epipalaeolithic evidence at Pınarbaşı was recovered from a small exposure (less than two metres by three metres) of the rock shelter that contained, along with a number of thin occupation lenses, a total of four grave cuts in its earliest layers. Two of these contained extended inhumations, a third with partial human remains and a fourth not excavated to sufficient extent to determine its occupancy (Baird 2012: 185). As a result of the rock-shelter location, the Epipalaeolithic levels are sealed by a considerable depth of limestone fallen from the overshadowing rock face. The assemblage includes an obsidian microlithic chipped stone component reminiscent of the Levantine Natufian and Phase IV at Öküzini, which suggests dating between 12,500 and 11,500 BC cal. (Baird 2012: 185; Baysal 2009: 228). The importation to the site of obsidian from the central Anatolian sources indicates long-distance movement, down-the-line trade or procurement networks. The floral and faunal evidence suggests that the rock shelter was located next to extensive wetland and phytoliths indicate that reeds might have been use to make shelters close to the rock (Baird 2012: 186). Baird (2012: 186) has suggested that the thin lenses of occupation material indicate sporadic occupation of the area.

The main contexts relating to beads are the inhumations, although small numbers of beads were found in a variety of contexts from these early levels. This material is not related to habitation at the site, however, the cemetery-like nature of the multiple burials in the same area suggests that there may have been a long-standing interaction with this

landscape by a transhumant population. In Grave 14 an extended adult male was interred with a toolkit (Figure 2) which may provide a good indication of what an individual would have carried and used in everyday life. The toolkit included shaft straighteners, sandstone tools, flint flakes, an obsidian core and a tortoiseshell probably used as a container (Baird 2012: 187). The majority of the beads, of Dentalium shell, were found associated with this probable container and a loose covering of red ochre.

THE BEAD ASSEMBLAGE

The Epipalaeolithic bead assemblage from Pınarbaşı totals 194 artefacts, and consists primarily of marine shells (97 percent), which are accompanied by five bone beads and a single stone bead all of which are in secure contexts (Table 1). Four species of marine shell were recovered, although Dentalium is by far the most common and constitutes 81 percent of the shells. The single Epipalaeolithic stone bead comes from just above Grave14, in what appears to be a secure context, and looks remarkably similar to the later simple disc beads of the ninth millennium BC and later; this basic and ubiquitous bead form does not seem to have changed significantly with time (Hamilton 2005; Esin 1999; Baysal forthcoming a and b). The single stone bead shows no distinction in terms of size or material from the ninth millennium BC cal disc beads found in the later occupation layers at Pınarbaşı and as such represents a precursor to the later, more prolific, use of this form of bead. The five bone beads are not well made, they are roughly broken although the amount of surface polish indicates that they were probably used enough to affect the surface (Baysal forthcoming a).

Although the beads were recovered from a number of different contexts, Grave 14 provides the most useful evidence of bead use, with four Nassarius beads, three probable bone beads and an extraordinary assemblage of Dentalium, numbering 140 examples of Dentalium dentalis and Dentalium mutabile inacquicostatum in situ (Figure 3), in conjunction with a toolkit. As well as being a fascinating insight into the contents of an Epipalaeolithic toolkit, they represent the only possible example of an ‘intact’ bead item (ie. one that still has all its original constituent parts in the same place) recovered from the site and as such provide a vital source of information about how beads were used. It is these beads that form the core of the discussion presented here.

The Dentalium beads were deposited within a tortoise carapace, probably used as a box or bowl, and appear to have been arranged in rows, perhaps sewn onto cloth or strung in an elaborate arrangement and then folded up for deposition (Baysal forthcoming a; Baird 2012). The alignment of the beads when they were found does not fully confirm their arrangement, however it does clearly indicate the multiple rows (Figure 4) and negates any possibility that the beads were deposited ‘loose’ or unthreaded. The inclusion of the elaborate bead item or items with the toolkit consisting of a variety of practical items such as shaft-straighteners and abraders, some local and some from more distant sources, suggests that all items may have been carried around together by the adult male who was buried.

Of the Dentalium shells 16 (11.4%) are the complex forms of the beads with either holes, the original double shells, rings of outer shell or a combination of these. There is no indication that preference was given to the more visually striking examples. The Dentalium shells are of a range of sizes (Figure 5) with an even length distribution, which indicates no deliberate typological distinction by those who chose and used them. There are only four examples that deviate from the even distribution, the three longest shells, and the shortest shell. There is no obvious evidence of working of the shells prior to their use as beads, apart from in the case of those that were sliced into neat shorter sections. Evidence from Australian examples of this shell species suggests that the variety in length seen at this site is a normal distribution, in the string of 342 beads studied by Balme and Morse the lengths ranged from 8.5-21 mm (2006: 807). The nature of the life of the Dentalium means that it is found washed up on the shore (Bar-Yosef Mayer 1997: 109) and so incurs some wear and tear on the way. It is for this reason that it is also difficult to determine whether the ends of most of the beads have been deliberately adjusted to size or whether they were found at their final length. In many cases at this site the ends of the beads are very badly worn although it is impossible to determine whether this happened during the use life of the bead or before it was originally found/collected.

Pınarbaşı's Epipalaeolithic Nassarius shells, which make up 17% of the assemblage, show inconsistency in piercing size (Figure 6), although the majority have small piercings (Table 4), around the edges of which the cut marks are still visible. Many have traces of red ochre both inside and outside (this has not yet been chemically verified). There are two 'melanistic' examples of Nassarius, the black colour of which may have been derived from heating in a reducing environment, as suggested by Lange et al. (2008), although whether this was deliberate is not clear. In terms of ornamentation, the colour range of these shells was therefore probably white, red and black.

BEADS IN A WIDER WORLD-VIEW

The Pınarbaşı Epipalaeolithic marine shell assemblage is interesting in its own right, but it also gives a window on a wider world of early interactions via material procurement. Pınarbaşı is located 180 kilometres from the Mediterranean Sea (Table 3) from which the marine shells were procured. In conjunction with the early movement of obsidian, also evidenced at Pınarbaşı, this is some of the earliest evidence of long-distance material movement in Anatolia and raises many questions about how and why the shells were travelling over such long distances. Placing these beads within the wider history of the use of marine shells reveals that they form one part of a very complex and long-lived human relationship with similar materials. Although the Mediterranean is not the most prolific source of marine molluscs, their use as a source of food is attested throughout the Mediterranean region from the middle Palaeolithic, the use of intentionally perforated marine shells is first recorded more than 80,000 years ago in Morocco (Colonese et al. 2011: 90). Anatomically modern humans were visiting the Levantine coast at least 90,000 years ago. Colonese et al. highlight that, "Whereas 'shelf-life' limitations affect shell transport to a large degree, ornamental shells are easily traded…" (2011: 92).

There is a clear distinction in the species that are chosen for food and for ornamentation, the Upper Palaeolithic at the Levantine sites of Ksar ‘Akil and Üçağızlı indicate a preference for small species as ornaments. The association of ornamental shells with the collection of molluscs for consumption, perhaps as a side effect, may be real, it is difficult to make concrete links between the two activities, however there is a definite desire by populations far inland from the Mediterranean to engage with items from the marine environment. The fact that the shells of molluscs that were consumed were not transported inland perhaps suggests a distinction between foodstuffs and items of ornamentation, an idea borne out by the apparently non-overlapping choices of species in the two spheres (Kuhn et al. 2001).

Beads have a history of use in Anatolia dating to at least the earliest Palaeolithic levels of Üçağızlı Cave on the southeast coast of modern Turkey (Kuhn, Stiner 2007b: 48). The bead assemblages from Üçağızlı described by Kuhn et al. (2001) show that Nassarius and Collumbella were already prominent in the sphere of ornamentation, the authors conclude that this was because of their appearance and perhaps also due to their relative rarity. At this early date there is already a marked distinction between molluscs used for food and those used for decoration, those chosen for decoration are smaller and with little food value (Kuhn et al. 2001: 7643). As is the case with the Pınarbaşı examples, the shells used ornamentally showed signs of abrasion that indicate they were collected from beaches rather than when still alive. There is no mention of the use of Dentalium at Üçağızlı, a fundamental difference from both Pınarbaşı and the Levantine sites.

The procurement of marine shells at sites that are far from the sea, as seen at Pınarbaşı, raises the question of whether there are parallels to be found in other contemporary sites that are equally removed from a marine environment. Much research has been carried out on the Upper Palaeolithic, Epipalaeolithic and Natufian cultures of the Levant and this may help our understanding of the Anatolian example as well as providing some contemporaneous data. Bar-Yosef (2005) has summarized much of the data from Levantine sites from the Palaeolithic to the Neolithic in general terms, although without detailed contextual information relating to the ways in which beads may have been used. She (2005: 179) concludes that while Nassarius and Collumbella can be seen as the type-species of the Epipalaeolithic, in desert sites characterized by highly mobile populations, the use of Dentalium is predominant; in general terms the Pınarbaşı assemblage appears to fit into this Levantine picture very neatly. The use of Dentalium is ‘one of the hallmarks of the Natufian culture’ (Bar-Yosef 2005: 180) and this is characterized by the use of these shells in large quantities, numbering in the hundreds, and associated with graves. Bar-Yosef’s (2005: 180) identification of both Collumbella and Nassarius species’ secondary importance holds true at Pınarbaşı, although the latter does not share the wider variety of species (such as Glycymeris and Cerastoderma) which are common in the Levant. According to this schema the lack of Dentalium use at Üçağızlı also fits the Levantine example.

In the Levant the early sedentism of the Natufian period has been associated with an increase in long distance procurement or exchange practices particularly the arrival of obsidian from Anatolia as well as shells from further afield than the Mediterranean (Bar-

Yosef 2005: 180). This association between long-distance procurement of tools or materials and the arrival of shells may also be relevant to the example of Pınarbaşı where obsidian is the dominant chipped stone material of the Epipalaeolithic deposits (Baird 2012: 186). As mentioned in the introduction to this section, all the shell beads found at the site were from marine sources and therefore came from at least as far away as the Mediterranean sea, 180km from the site, the closest route to which would be along the Göksu river valley (Baird 2007: 292). As there is no evidence to the contrary it is currently to be assumed that the beads were reaching the site in finished form, although whether this would be via exchange or through the mobile nature of the communities using the site cannot be determined. Baird (2007: 292) has suggested that these mobile communities may have used routes that encompassed a variety of different regions ranging from the coast to the Taurus mountains, the Anatolian plateau (and hence Pınarbaşı) and Cappadocia from where they were procuring obsidian. They may have encountered other communities on their travels and exchanged desirable items, resulting in the further redistribution of artefacts. This is also supported by the first evidence of the movement of obsidian to the south and east, arriving at Abu Hureyra in the Late Natufian and Ain Mallaha in the Final Natufian (Baird 2007: 298).

In general terms the Epipalaeolithic material at Pınarbaşı bears a strong resemblance to the Natufian of the south Levant, especially in the deposition of shell beads – and specifically Dentalium – in a burial context (Byrd and Monahan 1995: 261, 270). The apparent ease with which shell beads were procured at Pınarbaşı, as indicated by the sheer numbers of them found at the site, suggests that there were good, and consistent, links with the south coast. At some Natufian sites that are located much closer to the coast there are far fewer such shells (Byrd and Monahan 1995: 270) so we can surmise that either the shells held different levels of importance to different communities or there were issues of procurement which greatly affected the number of them that were available in different areas. If, as is evidenced by material from the Levant, shells were already travelling huge distances (an average of 209km from the Mediterranean and 320km from the Red Sea (Table 3, Reese 1991: 623)) and in significant numbers by the Natufian then it should not be surprising to find them on the Anatolian Plateau as early as the Epipalaeolithic examples from Grave 14.

BURIALS

The association of a large quantity of Dentalium shells (dentalis and mutabile inacquicostatum, where identifiable) with a burial at Pınarbaşı has very strong parallels with a variety of burial examples from Natufian sites in the Levant, which may help us to learn about the wider meanings and values of the beads and how they were used.

The very early potential dating of Grave 14 at Pınarbaşı means that the use of the beads is directly comparable to that in the Natufian in the Levant, there is widespread use of such large groups of Dentalium shells in the early Natufian period, as seen at Hayonim Cave (Belfer-Cohen 1988: 303). They may have been used in a similar way to the beads of the Natufian Dentalium shell headdress from El Wad (Bar-Yosef 1998). Grave goods

are not common in Natufian burials, in the survey made by Byrd and Monahan (1995) of the sites of Ain Mallaha, Hayonim Cave and El Wad 22.9% of early Natufian burials contain goods while they are found in only 1.1% of later Natufian burials (Byrd and Monahan 1995: 269). If a similar pattern is to be seen among the inhabitants of Anatolia at this time then the discoveries in Grave 14 at Pınarbaşı were extremely fortuitous.

El-Wad provides a potential parallel for the use of the Pınarbaşı Dentalia as a headdress, in a number of adult males buried with 'headdresses' 'circlets' or 'caps' which seem to have been accompanied by various pendants made from bone, either combined with the Dentalia or used alongside them (Belfer-Cohen 1995: 12). On the basis of the data presented by Belfer-Cohen (1995) there seems to be a very strong association between Dentalium ornaments and male interments. The burials of the Hayonim Cave provide a slightly different picture with the apparent inclusion of females in the use of Dentalium and the deposition of belts and bracelets as well as headgear (Belfer-Cohen 1995: 13). The numbers of Dentalia that are recorded in these burials are comparable with the number seen in Grave14 at Pınarbaşı ranging from 155-365 examples per burial (Belfer-Cohen 1995: 13). There are apparently also burials, classified as 'undecorated' which contained a few beads of bone and shell (Belfer-Cohen 1995: 13).

In the summary of the sites of Hayonim Cave, Ain Mallaha and El Wad by Byrd and Monahan (1995: 270) there are seven examples of burials with quantities of Dentalia similar to Grave 14 at Pınarbaşı. However, tool kits such as the one that accompanied the Anatolian example seem to be entirely absent from Levantine sites, which have no apparent link between utilitarian objects and burial practices (Byrd and Monahan 1995: 271). If the cultural traditions of Anatolia and the Levant really are linked then this raises questions about whether the individual of Burial 14 was interred in special circumstances, perhaps buried with his tool kit because he was a traveller and not with his own community. Overall the Levantine examples with ornamental grave goods are few in number at 11.3%, and those with considerable quantities, comparable to Pınarbaşı account for less than 4% according to the figures of Byrd and Monahan (1995: 269).

In her consideration of the possibility of social differentiation during the Natufian period, Belfer-Cohen (1995) uses grave goods as a possible marker of distinctions and indeed points out that the common burial ground itself is an innovation in this period. Belfer-Cohen (1995: 10) concurs that burials containing ornaments are relatively uncommon during the Natufian, of the 400 burials examined, only 24 contained decorative items and all are of early date. The use of shell beads does not cease in the later Natufian but their deposition in burials decreases dramatically. The deposition of tortoise carapaces is not common but is a known phenomenon of these burials. It is interesting to note that in all the Levantine examples of the extensive deposition of Dentalia the beads are directly associated with the human body and appear to have been 'worn' at time of deposition in contrast to Grave 14 where the beads are quite deliberately associated with the toolkit rather than the body.

Byrd and Monahan (1995: 272) strongly argue for a link between the quantity, size and robustness of the Dentalium shells used at a site and the proximity of the site to the Mediterranean, unfortunately they do not provide metric data to allow comparison

with Pınarbaşı. The range of size (Figure 5) and the quantity of beads at the latter site indicate that the Dentalia did indeed reach inland locations in considerable numbers, as was the case at many other early sites as detailed by Reese (1991: 614; Table 2). The use of Dentalium shells during the Upper Palaeolithic and Epipalaeolithic also conforms to the size pattern seen at Pınarbaşı with a range of 5-20mm, that represents use as found on the beach, without modification (Bar-Yosef 2005: 179). Whether the value attributed to the shells increased with distance from the sea, as suggested by Byrd and Monahan (1995: 272) remains open to consideration, but the desire to move the shells over long distances seems consistent.

Although it is clear that the shells were desired, and that they were used as a mode of personal ornamentation, the question of their role as an indicator of social differentiation remains difficult to answer. The possibility of such a role, in any form of differentiation, is negated entirely by Belfer-Cohen (1995) on the basis that there are too many variations in the site-specific traditions to be able to draw consistent distinctions between the burial practices that might indicate differentiation. Both the Anatolian and Levantine examples indicate that there was differentiation in the items with which individuals were buried, and that very few were buried with the quantity of beads that were found with the Pınarbaşı burial. Further examples of the use of Dentalia in burials in Anatolia will be required before any interpretation of their association with either greater accessibility in the Epipalaeolithic or differentiated status of individuals, as discussed by Bar-Yosef (2005: 182), can be attempted.

POST-EPIPALAEOLITHIC SHELLS IN ANATOLIA AND THE LEVANT

In addition to the geographical importance of the Pınarbaşı marine shell beads, the diachronic implications of their use offer some insight into a procurement and use pattern that continued for thousands of years. Dynamic change in the choice and use of marine shells, their numbers and variety, the way that they were pierced and combined may elucidate the values that were attributed to them and the manner in which, and reasons why, they were procured and transported. Evidence from the early sedentary central Anatolian sites of Pınarbaşı and Boncuklu Höyük shows that there was a marked difference in the use and selection of shells by the early to mid-9th millennium BC cal (Baysal forthcoming a and b). Dentalium, the most widely and prolifically used of the Epipalaeolithic bead species, dwindles in use to become one of the least common of the 9th millennium bead types (Baysal forthcoming a and b). Meanwhile Nassarius and Collumbella are used in greater numbers with the addition of Nerita, which is also observed as joining the PPNA gamut at Netiv Hagdud and sites in the Gilgal area (Bar-Yosef 2005: 180). Recent evidence associated with Çatalhöyük suggests that by the later pre-pottery phases at the site the procurement of marine shells was augmented by the addition of fossil shells collected from at least 50 kilometres from the site (Bar-Yosef Mayer et al. 2010).

The emphatic popularity of Nassarius, both in the Levant and Anatolia, throughout a very long temporal span, raises questions about reasons for this choice. It can be conjectured that this species was simply more readily available on the coast, or indeed

that it was a preferred choice in personal ornamentation, perhaps because of the choice of colours that it offered. Kuhn et al. (2001) suggest that this species may not have been so easy to find and certainly had little value as a foodstuff, their suggestion that there may have been an early communicative value to this species, whether as an item of exchange or as an indicator of social identity needs serious consideration. Unlike other shell species Nassarius was employed in its natural state, but also may have been heat treated to create the black version (Lange et al. 2008) and covered in ochre for a red colour (Baysal forthcoming a and b). Again this either suggests that these opportunities were associated with this specific species or that the options were invented as a result of its ubiquity. Although the species use is consistent, the treatment shows slight, but distinct, changes through time with variation in the size of the piercings. The Epipalaeolithic examples are characterized by small, neat piercings, while the 9th millennium beads have larger, and often less tidy, piercings (Table 4) (Baysal forthcoming a and b). The 9th millennium assemblages from both Pınarbaşı and Boncuklu Höyük show consistency in the piercings sizes and location that indicate a possible shared source or procurement pattern (Baysal 2013).

Bar-Yosef (2005: 183) has concluded that later than the Natufian period, shell beads are rarely associated with burials until the Chalcolithic in the Levant. This is certainly not true in central Anatolia where they remain a consistent, although not prolific, component in burial contexts (for example Baysal forthcoming b; Caneva 2012: 8). Indications from the ongoing excavations at Boncuklu Höyük are that shells became fairly interchangeable with small stone beads in their deployment in burials, where both materials were regularly strung singly in the vicinity or wrist or neck, whether on clothes or separately remains unclear (Baysal forthcoming b).

Differential legacies from the Epipalaeolithic suggest that a variety of factors were at play in the preferences for procurement and use of materials and that dynamic change may have been regional rather than site-specific. Although the changes are perceptible, the continuity in the use of marine shells remains their defining feature and suggests that there may have been enduring value systems that had their roots in mobile hunter-gatherer groups. Belfer-Cohen (1995: 9) emphasizes the continuities seen in many aspects of material culture between the Natufian and the later Neolithic cultures of the southern Levant, and indeed the very early sedentary settlements of the Konya Plain may also conform to a similar pattern. The central Anatolian evidence is currently very sparse, future data may clarify the extent to which Anatolian Neolithic material cultures are derived from the Epipalaeolithic antecedents.

DISCUSSION

The assemblage of marine shells from Pınarbaşı is a unique example of such a large number of beads to be found in an early context on the Konya Plain. It helps to elucidate the presence of people on the Anatolian Plateau who had already established the contact with coastal areas that was to last for thousands of years. The arrangement of the beads and their apparent inclusion within a personal toolkit suggest that this may be representative of the items that a single individual owned and carried with them. Baird

(2012) has considered the possible relationship between the Epipalaeolithic of Pınarbaşı and the south coast of Anatolia, and indeed there are some similarities, particularly in the use of similar shell species, however the nature of any possible interactions between the two areas remains obscure. The closest route from the coast to the Konya Plain is via the Göksu valley, the use of which is well attested in later periods (Newhard et al. 2008). The arrival of obsidian in Levantine sites such as Abu Hureyra and Ain Mallaha indicates that there were links between the central Anatolian obsidian sources and both the Konya Plain and the Levant during the Epipalaeolithic, but not, apparently to sites on the south coast of Anatolia (Baird 2012: 189).

Current evidence suggests that the use of marine shell beads at Pınarbaşı is in keeping with a much wider pattern of raw material procurement and use that, in the Levant, was associated specifically with the Natufian culture but historically rooted much earlier in the Palaeolithic. The use of specific species is surprisingly consistent between the two areas, especially when the ready availability of a much wider range of species is considered. Despite the apparent similarities, however, there are some fundamental differences, which must be taken into account. The identification by Byrd and Monahan (1995: 269) of the Dentalium shell as the 'type fossil' of the Natufian culture and of burial in particular encourages a direct comparison between the Levantine and Anatolian examples. However, caution is required in interpretation based on the combination of materials and circumstances at Pınarbaşı that currently render it a unique case. While the presence of a number of burials in one area is highly consistent with the Levantine Natufian examples, as indeed is the use of the large number of Dentalia in association with one among a group of individuals, the inclusion of a tool kit with the beads and the placement of the Dentalium bead item (whatever form it took) in a container near the head of the individual rather than worn on the body also indicates some fundamental differences. Current evidence therefore suggests that there were probably a mixture of influences on the people of the Anatolian Plateau during the Epipalaeolithic, some perhaps coming from the south coast, some from the Levant and others from the Central Anatolian obsidian sources. The circumstances of the individuals in question must also be considered, perhaps the toolkit and packed-up decorative items were as a result of their transhumant lifestyle, it is possible that they were passing through the Konya Plain and that circumstances of burial were therefore varied.

On the basis of contrasting evidence of the use of marine shell species from Ksar 'Akil and Üçağızlı (Kuhn et al. 2001) on one hand, and the Levantine Natufian sites (Belfer-Cohen 1995) on the other, it is possible to identify the combination of two different traditions at Pınarbaşı, one dominated by the use of Nassarius and Collumbella shells and the other by the use of large numbers of Dentalium. The use of the Dentalium species, on the basis of current evidence, seems to belong to a tradition from outside Anatolia, possibly originating in the southern Levant. It is interesting to note that it is the Nassarius and Collumbella culture that survives into the Neolithic period on the Konya Plain, with the addition of an increasingly varied selection of species as time goes on (Reese 2005; Baysal forthcoming a and b). It might be conjectured therefore that this was the choice of beads that was 'native' to Anatolia, the Dentalia being a long-distance import, perhaps both physically and ideologically or culturally.

The general increase in the movement of materials during the Epipalaeolithic may be a result of the wide-ranging transhumance of the populations at this time. Discussion of interactions are, of course, inherent in the consideration of manifestations of apparently related traditions at sites far removed form each other, the nature of contacts and interactions is not easily identifiable from the archaeological record. Although at this early date the populations of this area were probably highly mobile, this does not give any clues as to the areas they frequented or the range of their territory. The two raw materials that were consistently procured from the longest distances are the marine shells and obsidian, it would be interesting to explore the possibility that the procurement of both materials was linked or related in some way. It is not impossible that the procurement of beads was a direct result of networks relating to other materials, indeed it also cannot be ruled out that the beads were part of trade as an early form of currency.

The consistent choice of marine shell species and distinction between food and ornamental species, in conjunction with the very wide and prolonged use of marine shells, raises a variety of questions about their meaning and the value attributed to them. As a material, marine shell is common in cultures across the world as an expression of wealth, status or as an early form of currency (for example Yang 2001; Ktalav and Borowski 2010). Whether Anatolian and Levantine shell beads and the items made with them were significant economically or symbolically, the procurement process is complex enough to say that they were highly desirable. If Hodder's (1990) suggestions about the contrast between wild and domestic are applied then perhaps the consistent transportation of marine shells to locations so far from the sea indicates an appreciation of a 'wild' and distant entity that most of the people who saw the shells would never have encountered. This also has implications for the breadth of the world-view of the Epipalaeolithic inhabitants of Central Anatolia and inland sites in the Levant, suggesting that their remoteness from the marine environment did not stop them from referencing its existence in everyday life.

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Fig. 1. Location of the site of Pınarbaşı, Turkey.

Fig. 2. Plan of Epipalaeolithic levels of Trench B at Pınarbaşı, Grave 14 with toolkit items above skull highlighted.

Fig. 3. Dentalium shell beads from Grave 14 at Pınarbaşı, in situ.

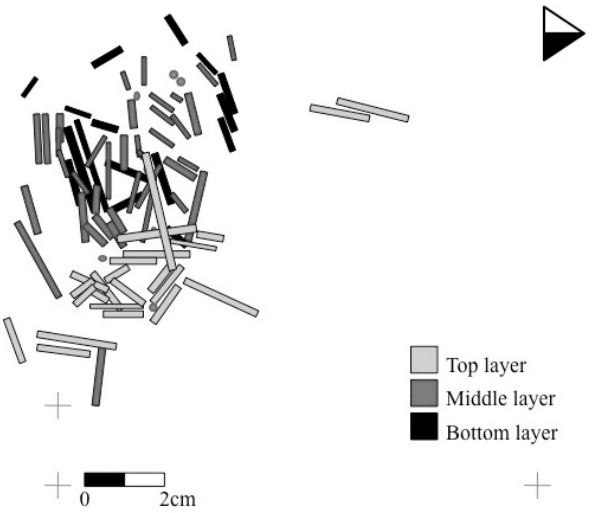

Fig. 4. The positions of the Dentalium shell beads in Grave 14 at Pınarbaşı.

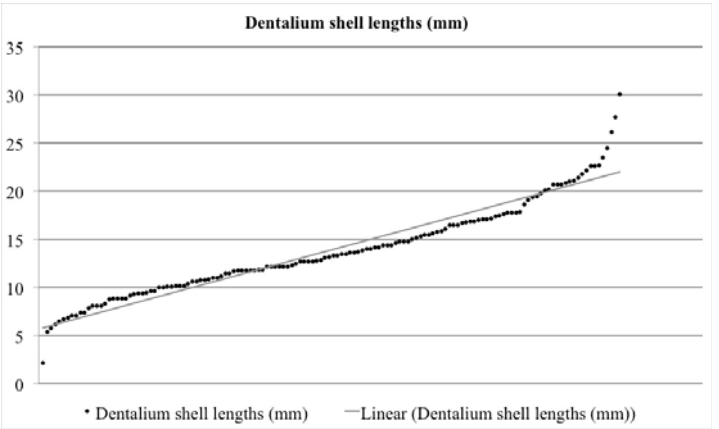

Fig. 5. Lengths of the Dentalium beads from Pınarbaşı Grave 14.

Fig. 6. Various shell beads from Epipalaeolithic levels at Pınarbaşı,
top: Nerita, Collumbella; bottom: Nassarius small piercing, Nassarius large piercing.

Bead type	*Shell species*	Frequency	Percentage
Marine shell		188	97
	Dentalium	*152*	*(27)*
	Nassarius	*33*	*(17)*
	Collumbella	*2*	*(1)*
	Nerita	*1*	*(0.5)*
Stone		1	0.5
Bone		5	2.5
Total		***194***	***100***

Table 1. Composition of the Epipalaeolithic bead assemblage from Pınarbaşı.

Site	Total shells	% Dentalium
Hayonim terr.	817	79.1
Hayonim cave	530	92.5
Rosh Horesha	473	93
‘Ain Mallaha	309	73.1
Rosh Zin	304	92
Azariq XV	293-296	97.4
Pınarbaşı	**231 (epipal 190)**	**68.8 (83.7)**
Wadi Hammeh 27	100+	100
El Wad	89	78.7
Beidha	71	87.3
J2	70	77.1
Fazael VI	49	63.3
Hatoula	30	83.3
Azraq 18	26	96.2

Table 2. Percentage of Dentalium shells in shell bead assemblages at Natufian sites in the Levant (after Reese 1991, 614) showing the position that Pınarbaşı would take in relation to the other sites.

Site	Distance from the Mediterranean	Number of beads
Epipalaeolithic sites		
Jilat 6	170	102
Jilat 8	170	7
Jilat 10	170	5
Jilat 22	170	11
Azraq 17	170	4
Azraq 32	170	1
Uwaynid 18	185	11
J201	200	1
J202	200	4
Wadi Sayakh	275	18
Pınarbaşı	180	190
Natufian sites		
Azraq 18	200	25
J406	200	1
PPN sites		
Jilat 7	170	25
Jilat 26	170	3
Beidha	175	8
Sabra 1	175	5
Azraq 31	200	11
Dhuweila	200	3
Wadi Tbeik	300	c. 30
Ujrat elMehed	300	?
Çayönü	225	-
Suberde	80	-
Pınarbaşı	180	30
Boncuklu Höyük	200	46
Erbaba	120	-
Hallan Çemi	450	-

Table 3. Distance of sites where marine shell beads have been found from the Mediterranean (adapted from Reese 1991, 623; Reese 2005, 124).

	Large	Medium	Small	Indeterminate
Epipalaeolithic	6	9	16	2
9th millennium	8	4	0	5

Table 4. Piercing sizes of Nassarius shells during the Epipalaeolithic and 9th millennium phases at Pınarbaşı.

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ÜBERLEGUNGEN ZU MASAURHISAS, EINEM KÖNIG AUS TABAL, UND DER HERRSCHERLISTE VON TUWANA

Zsolt Simon[*]

Abstract

This paper discusses the identity of King Masaurhisas known from the PORSUK Hieroglyphic Luwian inscription and the related geographical and chronological problems. It will be argued that Masaurhisas was a king of Tuwana and a renewed palaeographic, iconographic, and chronological analysis of the Tuwana inscriptions confirms the traditional sequencing of the Tuwana kings (Muwaharanis I > Warpalawas > Muwaharanis II) and suggests a dating of Masaurhisas after Muwaharanis II, i.e. to the beginning of the 7th c. BC. A discussion of various connected toponyms confirms the necessity of distinguishing between Atuna/Tunna to be located in the vicinity of Bohca and Dunna/Tynna/Zeyve Höyük, where also an explanation will be offered to the hitherto unexplained alternation of Atuna/Tunna. It will be furthermore suggested that the latter one is to be identified with the settlement of Tuna of the KULULU lead strip No. 1.

1. WO HERRSCHTE MASAURHISAS?

Parhwiras, der Befehlshaber des Heeres (EXERCITUS-*la*/*i*/*u-na-sa*$_8$ MAGNUS+*ra*/*i-za-sa*), gedenkt in seiner Inschrift von PORSUK, dass ihm der König Masaurhisas – wörtlich – „wohl ging" (§4 |*wa*/*i-mu-ta* […] *ma-sa*-MAGNUS+*ra*/*i-hi-sà-sá* |REX-*ti-sa* |*wa*/*i-su* |"PES"-*wa*/*i*+*ra*/*i*): „[1]Ich bin Parhwiras, der Sohn von Atis, der Enkel von Nunas. Wohl …te ("PES"(-)*wa*/*i-ma-ta*) mir mein Herr, der Gott Sarruma, wohl …ten ("PES"(-)*u-za-ma-ta*) mir die Könige, wohl ging mir Masaurhisas, der König. Ich selbst war der Befehlshaber des Heeres. […]$^{?}$ [2][…]$^{?}$ (*fragmentarisch*)" (vgl. Hawkins 2000: 527-528). Dieser Ausdruck ist aus anderen Texten (für ihre Liste s. Hawkins 2000: 444) wohlbekannt und bedeutet ‚jemandem gewogen sein'. Obwohl dies aus der Inschrift nicht explizit hervorgeht, ist es doch logisch anzunehmen, dass Masaurhisas der Oberherr von Parhwiras war (so auch Aro 1998: 123 Anm. 758). Der Text sagt leider nicht, wo dieser König herrschte. Da die Inschrift aus Zeyve Höyük (Porsuk) stammt, herrschte er also zumindest in der Umgebung von Zeyve Höyük – aber wieso kann man ihn in die Welt der luwischen (späthethitischen) Königtümer einfügen? Drei Hypothesen wurden bisher in der Forschung vorgeschlagen:[1]

[*] Dieser Aufsatz ist im Rahmen meiner durch ein TÜBITAK-Stipendium geförderten Forschungen an der Koç Universität, Istanbul zustande gekommen, zwei Institutionen, denen ich ebenso wie Bärbel Ruhl, die das Deutsch dieses Beitrags verbessert hat, sehr dankbar bin.

[1] Aro 1998: 123 bezeichnet sowohl seinen Status als auch seine zeitliche Einordnung als „problematisch". Ohne Argumente datiert Lebrun 2007: 459 Anm. 1, 463 die Inschrift in das 9. Jh. Aus unbekannten Gründen lässt das Handbuch von Bryce 2012 Masaurhisas vollkommen außer Acht.

Hawkins 2000: 432 schlägt vor, ihn als einen Vorläufer oder Nachfolger des Tarhunazas der BULGARMADEN-Inschrift zu sehen. Dieser Vorschlag wurde nicht näher begründet, obwohl er problematisch ist: Tarhunazas war laut seiner eigenen Inschrift (§1)[2] ein sog. Tarwanis und zwar ein dem König Warpalawas von Tuwana unterstellter Tarwanis (ähnlich formuliert Pelon 2004: 198, der Masaurhisas als einen wahrscheinlichen Vasall von Warpalawas betrachtet). Masaurhisas ist dagegen ein König, und obwohl einige Könige in Tabal auch Tarwanis sind (z.B. Warpalawas selbst, s. oben), kann ein Tarwanis in Tabal nicht als König bestimmt werden, solange dieser Rang nicht schriftlich belegt ist, weil diese Tarwanis in Tabal den Königen untergeordnet waren (z.B. auch der Tarwanis Ruwas aus KULULU 4 dem Großkönig Tuwatis, da er wahrscheinlich identisch mit Ruwas, dem Diener von Tuwatis aus KULULU 1 ist). Mit anderen Worten bedeutet die Inschrift von PORSUK, dass Masaurhisas mit den Königen von Tuwana gleichrangig ist.

D'Alfonso 2012a: 96 hat beobachtet, dass Masaurhisas in Anbetracht der bekannten Könige von Tuwana aus dem 8. Jh. entweder in das 7. Jh. oder vor das 8. Jh. datiert werden kann. Da er meint, das 7. Jh. sei „a very late and thus unlikely date for any hieroglyphic inscription", entscheidet er sich für die Periode vor dem 8. Jh. und zwar für eine Periode vor der Etablierung des Königtums von Tuwana und knüpft daher Masaurhisas aus paläographischen Gründen mit Kilikien zusammen. Die auf der runden Form der ursprünglichen Vierecke der <wa/i>-Zeichen der PORSUK-Inschrift beruhende Zusammenknüpfung mit Kilikien ist aber nicht zwingend, weil solche Zeichen auch aus Tuwana bekannt sind (İVRİZ Frag. 3, vgl. auch d'Alfonso 2012a: 94, Table 1). Die kilikischen Zeichen (der Inschriften von ÇİNEKÖY und KARATEPE) zeigen sogar den mittleren Strich des <wa/i> mit einem schrägen Ablauf bzw. mit einem Haken auf dem oberen Ende (dem Zeichen von İVRİZ Frag. 3 entsprechend), dem einfach vertikalen Strich der Zeichen von PORSUK entgegen, die also keine kilikischen Zeichen darstellen. Obwohl die Rundung der Vierecke selbst als kilikischer orthographischer Einfluss erklärt werden darf (wie auch d'Alfonso überlegt), reicht sie also nicht aus, Masaurhisas in politischem Sinne mit Kilikien in Zusammenhang zu bringen. Die Fragen, ob das 7. Jh. in der Tat zu spät für eine hieroglyphen-luwische Inschrift ist und man daher Masaurhisas von Tuwana trennen muss, werden unten (§3) ausführlich erörtert.

Auch der dritte Vorschlag geht auf Hawkins zurück. Er hat noch früher vorgeschlagen, dass Masaurhisas ein König von (A)tuna/Tynna sein könnte, wenn (A)tuna/Tynna mit Zeyve Höyük zu identifizieren ist (Hawkins 1969: 108-109; seine beiden Vorschläge schließen einander natürlich nicht aus). Diesen Vorschlag hat Jasink 1995: 145, 147 übernommen, die Masaurhisas als den Vorläufer von Kurtis und

[2] *á-mu-wa/i-mī-i* |TONITRUS-*hu-na-*(LITUUS)*á-za-sá-'* |IUDEX-*ni-sa* |TONITRUS-*hu-wa/i+ra/i-**273-*sa* |(INFANS)*ni-mu-wa/i-za-sá* |*wa/i+ra/i-pa-la-wa/i-si-sa* |REX-*ti-sa* |HEROS-*ti-i-sá* IUDEX-*ni-sa* SERVUS-*la/i-sa* ‚Ich bin Tarhunazas, der Tarwanis, Sohn von Tarhuwara/i-*273, der Diener von Warpalawas, dem König, dem Helden, dem Tarwanis' (Umschrift nach Hawkins 2000: 522, aber mit <la/i> statt <ta_4> Rieken – Yakubovich 2010 folgend und mit <^{l}> in wortschließender Position). Nach der Orthographie muss der Name wahrscheinlich als Tarhunna-azas gelesen werden, d.h. mit der hethitischen Form des Wettergottes (vgl. Kloekhorst 2008: 835-836), aber als luwisches Kompositum mit der Bedeutung „Geliebter des Wettergottes", für letztere s. Gérard 2004: 311-312; der Lautwert des Zeichens <á> war zu dieser Zeit nicht mehr verschieden von <a> (Melchert 2010).

Ashwi(si)s der BOHÇA-Inschrift, den mutmaßlichen Königen von Atuna bestimmt hat (auch in Jasink 1998: 350, schon ohne Einschränkungen). Um diesen Vorschlag zu beurteilen, muss man die Frage der Identifizierung von (A)tuna besprechen.

2. DAS PROBLEM VON (A)TUNA

Das Problem von (A)tuna besteht in dem eventuellen Zusammenhang, bzw. in der Identifizierung der folgenden geographischen Einheiten:

1. Das „Silbergebirge“ Tunni und das „Alabastergebirge“ Mulî, die beide in dem zusammenfassenden Bericht von Salmanassar III. über seinen Feldzug in Tabal (836) erscheinen (RIMA 3, A.0.102.40 iii 2-6) und die in dem ausführlichen Bericht entlang der Route Melid – Timur-Gebirge – Artulu, Hauptstadt von Tuwatti – Tunni-Gebirge – Hubišna – Mulî erwähnt werden (RIMA 3, A.0.102.16 172’b-181’a). Dies wird noch durch die Information über den Stein des Tunu-Gebirges (Alabaster) aus der gleichen Zeit ergänzt (RIMA 3, A.0.102.62).

2. Das Kleinkönigtum Atuna / Tun(n)a, das zur Zeit des Tiglatpileser III. und Sargon II. erwähnt wird, und zwar in beiden Formen in den gleichen Texten und zu der Zeit beider Herrscher: als Tributzahler zu der Zeit von Tiglatpileser III (Tuna in RINAP 1.15 Z. 1; 1.27 Z. 5-6; 1.32 Z. 6; 1.47 Rs. 9‘, aber Atuna in RINAP 1.35 iii 11) und zu der Zeit von Sargon II., als dieser Herrscher 718 Šinuhtu dem Kurti von (A)tuna gegeben hat (erwähnt auch 713, für eine vollständige Liste der Belege s. Bagg 2007: 35-36) und als Atuna zusammen mit Istuanda die Städte von Bit-Paruta erobert hat (SAA 1.1 Rs. 43-45)

3. Die Stadt Dunna der hethitischen Texte (RGTC 6/1: 439, RGTC 6/2: 173).

4. Die Stadt Tynna von Ptolemaios (V.6.22), die auch aus der Inschrift CIL VI 5076 bekannt ist.

5. Die Stadt Tuna, bzw. Obertuna und Untertuna des KULULU Bleistreifens Nr. 1 (Tuna: §3.11, §6.37, §9.49,53,55,56,57,60; Obertuna: §3.7, §9.63; Untertuna §4.15, §7.38; Hawkins 2000: 503-509, 512).

6. Das Königtum eines gewissen Kurtis, des Inschriftenherren von BOHÇA (Hawkins 2000: 478-480).

Der eventuelle Zusammenhang dieser Einheiten wird in der Forschung bisher folgendermaßen rekonstruiert (abgesehen von der Frage nach dem Tuna des KULULU-Bleistreifens, dazu s. anschließend):

Dunna wurde schon von Mayer 1923: 12 mit Tynna von Ptolemaios identifiziert, zu dem Forrer 1920: 72, 1926: 35 das assyrische Tun(n)a (vgl. aber schon Maspero 1900: 239 Anm. 2 und Winckler „1907“ [s. dazu Otten 1957: 30]) und später auch das Tynna der Inschrift CIL VI 5076 (das anhand des in der Inschrift erhaltenen Itinerars genau und zwar in der Nähe von Faustinopolis lokalisiert werden kann, vgl. aber schon Ramsay 1890: 68) hinzugefügt und die Siedlung mit Zeyve Höyük identifiziert hat (1937: 146-

149), eine Auffassung, die seitdem allgemein akzeptiert worden ist.[3] Weippert 1973: 50 wollte diese Auffassung noch durch die Behauptung untermauern, dass die Texte von Tiglatpileser III. nach geographischen Gesichtspunkten geordnet sind (vgl. implizit schon Hulin 1963: 67) und Atuna/Tun(n)a deshalb zwischen Tabal und Tyana zu suchen ist.[4]

Andererseits hat Gurney 1979 gerade aufgrund der gleichen Texte (und der Beobachtung Weipperts) das Kleinkönigtum Atuna/Tun(n)a von den weiteren Toponymen getrennt, weil es laut ihm zwischen Tabal (bei ihm Kayseri) und Tuwana (bei ihm Niğde) zu lokalisieren wäre, wobei eine Lokalisierung in Bohça vollkommen plausibel sei (ähnlich Galil 1992: 56, aber ohne Argumente), und daher die Ähnlichkeit mit dem Stadtnamen Dunna/Tynna (bzw. dem Bergnamen) als rein zufälligen Gleichklang beschreibt. Diese Ansicht wird auch von Bryce 2012: 145-146 vertreten, der noch einen weiteren Grund hinzufügt und zwar, dass Atuna/Tun(n)a in der Nachbarschaft von Šinuhtu/Aksaray liegen musste, weil Sargon II. nur in diesem Fall Kurti von Atuna Šinuhtu übergeben konnte (vgl. Aro 1998: 105). Gurney fügt noch plausibel hinzu, dass man Atuna mit dem heth. Adunuwa (vgl. RGTC 6/1: 57, RGTC 6/2: 19) gleichsetzen könnte und wird darin von Forlanini 1992: 177-178 gefolgt.

Jasink 1995: 145-147 akzeptiert sowohl die Identifizierung von Dunna/Tynna/(A)tuna mit Zeyve Höyük als auch die Annahme der geographischen Ordnung und die Identifizierung von Kurti von Atuna/Tun(n)a mit Kurtis von BOHÇA und schließt dementsprechend auf ein relativ großes Herrschaftsgebiet von Atuna/Tun(n)a.

Schließlich kann das Atuna-Problem laut Hawkins 2000: 432 zurzeit nicht befriedigend gelöst werden.[5] Er stellt aber fest (Hawkins 2000: 432 Anm. 75), dass das Itinerar von Salmanassar III. und die Erwähnung von Silber und Alabaster vollkommen zu (einem Teil von) Bolkar Dağları, der Umgebung von Zeyve Höyük passen, vgl. die

[3] Z.B. Naster 1938: 21; Garstang 1944: 17 (vgl. schon 1929: 17 Anm. 1); Lewy 1947: 16; Ruge/Friedrich 1948; Garstang/Gurney 1959: 72; Hulin 1963: 66-67; Ballance 1964: 144; Franck 1966: 3559; Weippert 1973: 50; Barnett 1975: 424; Gurney 1979; Freu 1980: 247; Zgusta 1984: 643; Çapar 1987: 52; Forlanini 1988: 138; Coindoz 1991: 77 Anm. 1; Drew-Bear 1991: 134 Anm. 19; Lemaire 1991: 269 Anm. 14; Aro 1998: 105; Talbert 2000: Karte 66; Parpola/Porter 2001: Karte 1 & 2; Casabonne 2004: 41, 46; Lebrun 2007: 459-460; s. auch die Ausgräber, z. B. Pelon 1970: 280, 1991: 15, 1992: 311; Dupré 1983: 127; Beyer 2010: 394. Für nur aus wissenschaftshistorischer Perspektive interessante Meinungen s. Aro 1998: 104-105 mit Anm. 626. Die Skepsis von Friedrich (Ruge/Friedrich 1948: Sp. 1793), aufgrund der Annahme, Dunna werde immer mit <du> geschrieben, ist nicht nur aus sprachwissenschaftlicher Sicht unbegründet (diese Zeichen waren in der hethitischen Keilschrift gleichwertig, vgl. neuestens Kloekhorst 2010), sondern auch aus philologischer (s. ABoT 56 ii 24 für <tu>).

[4] Was aber seiner eigenen Auffassung widerspricht, da Tyana mit Kemerhisar bei Bor, d.h. weit nördlich von Porsuk, identisch ist (Hawkins 2000: 425). Weippert schließt von Sodens Vorschlag (1961: Sp. 577), Atuna/Tun(n)a sei mit Adana identisch, gerade aufgrund dieser geographischen Ordnung aus. Es wird aber unten gezeigt, dass diese Texte eigentlich nicht geographisch angeordnet sind. Die phonologischen Diskrepanzen (*a* vs. *u*, *d* vs. *t*) und die Tatsache, dass der Herrscher der Region von Adana zu dieser Zeit in den assyrischen Quellen Urikki heißt, schließen diese Gleichung aus (von Soden wollte dieses Problem mit einer sprachwissenschaftlich unmöglichen Annahme (den Königsnamen Mattî von Atuna, der heute als Kurti gelesen wird, als eine assyrisierte Verkürzung von Azatiwatas, dem Inschriftenherren von KARATEPE erklärend) lösen).

[5] Früher hat er mit Morpurgo-Davies (1979: 390-391) vorgeschlagen, dass die gleichzeitige Anwesenheit beider Toponyme in zwei verschiedenen Regionen dem Nomadismus oder der Migration der Stämme zugeschrieben werden könnte. In Anbetracht der geographischen Gegebenheiten und der Natur des luwischen Nomadismus (dazu s. Simon 2010) ist dieser Vorschlag aber wenig wahrscheinlich.

Silberbergwerke in Bulgarmaden und den Alabasterbruch in Zeyve Höyük.[6] Das gleiche gilt für das Mulî-Gebirge: die auf dem Toros Dağ befindliche BULGARMADEN-Felsinschrift beschreibt, wie Warpalawas seinem Diener, Tarhunazas das Muti-Gebirge gegeben hat, das dementsprechend den luwischen Namen von Toros Dağ zeigt (Hawkins 2000: 522). Die längst vermutete Gleichung von diesem Muti-Gebirge mit dem Mulî-Gebirge von Salmanassar III.,[7] die auch durch hethitische Angaben unterstützt werden kann (Aro 1998: 107-108 mit Lit., vgl. Laroche 1966:177; Lebrun 2007: 460-462), konnte jetzt d'Alfonso (2012b: 178 Anm. 9) mithilfe des luwischen Rhotazismus phonologisch regelmäßig beweisen.[8]

Aus dieser knappen Forschungsgeschichte sind zwei Punkte klar geworden: Erstens, dass man mit der bisherigen Forschung eindeutig einverstanden sein kann, dass das Gebirge aufgrund des Itinerars und den natürlichen Umgebungen zweifelsfrei in den Bolkargebirgen zu lokalisieren ist.

Zweitens, dass man mit Gurney einverstanden sein kann, dass Atuna/Tun(n)a nördlich von Tuwana und auf alle Fälle nördlich von Tynna zu suchen ist, wenn die Tributliste von Tiglatpileser III. einer geographischen Ordnung folgt. Dies ist allerdings nicht gesichert, im Gegenteil: in Anbetracht der in geographischer Hinsicht eigenartigen Aufzählungen der Listen, kann man kein Argument auf diesen Listen aufbauen:

1) Kommagene > Damaskus > Samaria > Tyros, Byblos > Que > Karkamiš > Hamath > Sam'al > Gurgum > Melid > Kaska > tabalische Königtümer > Araber (RINAP 1.14 Z.10-12 + 1.15 Z. 1-2; 1.27 Z. 2-7; 1.32 Z. 1-8), aber

2) Kommagene > Damaskus > Samaria > Tyros, Byblos > Que > Melid > tabalische Königtümer > Kaska > Karkamiš > Sam'al > Gurgum > Araber (RINAP 1.35 iii 1-19), aber

3) Kommagene > Que > Byblos, Tyros > Karkamiš > Hamath > Sam'al > Gurgum > Melid > Kaska > tabalische Königtümer > Arvad > Bit-Ammon > Moab […] (…) (RINAP 1.47 Rs. 6'-10').

Dennoch gibt es einen Hinweis, mit dem man m. E. die (Nicht-)Gleichsetzung von Atuna/Tun(n)a mit den anderen Städten lösen kann, und das ist der bisher nicht geklärte wechselnde Anlaut von Atuna/Tun(n)a.[9] Im Falle von Atuna/Tun(n)a handelt es sich offensichtlich um einen luwischen Siedlungsnamen in neuassyrischer Umschrift. Da ein

[6] S. schon Meissner 1912: Sp. 148; Forrer 1937: 149; Erzen 1940: 6; Hulin 1963: 66-67; Herzfeld 1968: 65, 126; Weippert 1973: 50; Hawkins 1982: 394; Desideri/Jasink 1990: 119; Lemaire 2000: 57; Yamada 2000: 213; Bagg 2007: 261; vgl. noch Aro 1998: 107-108. Für eine alternative Lokalisierung in Ala Dağ / Antitaurus s. aber Bing 1969: 11-12; Yakar 1976: 121; Parpola/Porter 2001: Karte 1 & 2 (alle ohne Argumente) und Börker-Klähn 1982: 68-69, der zufolge Bulgar Maden auszuschließen ist, „da die assyrische Route dann hätte heißen müssen Tabal – *mūlî*/*tunni* – Que oder umgekehrt" – wie sie in der Tat heißt.

[7] Hulin 1963: 67; Bing 1969: 176; Lemaire 1991: 270; Hawkins 1995b: 414, 2000: 522; Aro 1998: 113; Yamada 2000: 213; Parpola/Porter 2001: Karte 1 & 2; Bagg 2007: 176.

[8] Erst damit wird die alternative Lokalisierung am mittleren Halys von Boson 1928: 437 endgültig ausgeschlossen. Für den archäologischen Hintergrund s. Yener 1986, Yener/Özbal 1986.

[9] Die Erklärung von Kretschmer (1932: 86), *a-* sei ein hattischer Artikel, ist nicht nur aus hattischer Sicht sehr problematisch (ein solcher ist nämlich im Hattischen nicht bekannt), sondern auch weil kein Grund besteht, in Atuna einen ursprünglich hattischen Namen zu sehen, der bis in das 8. Jh. morphologisch transparent geblieben ist.

anlautendes /a/ normalerweise weder im Luwischen noch im Neuassyrischen einem Wort anwächst, muss man annehmen, dass die sprachgeschichtlich frühere Form Atuna lautet. Inzwischen ist es klar geworden, dass das anlautende /a/ im Luwischen entgegen der früheren Annahmen nicht geschwunden ist bzw. nicht schwinden konnte (Melchert 2010, bes. 152). Daher können also das heth. Dunna, und das griech. Tynna keine Variante von Atuna darstellen (wo Dunna noch dazu viel früher belegt ist und daher *Atunna zu erwarten wäre) und daher ist Atuna/Tun(n)a als eine von den anderen Tynna unterschiedliche Siedlung zu bestimmen.[10] Die Schwankung beschränkt sich jedenfalls nur auf die neuassyrischen Quellen, die mit der bekannten neuassyrischen Erscheinung der sporadischen Aphärese des anlautenden unbetonten Vokals, bes. /a/ (Parpola 2004: 16 Anm. 54 mit Lit., Paradebeispiel *Assyrien* > *Syrien*, vgl. Rollinger 2006) erklärt werden kann. Mit anderen Worten muss man die zwei Siedlungen voneinander eindeutig trennen: einerseits Atuna, das in den assyrischen Quellen erwähnte Königreich (wo auch immer es lag) und Dunna/Tynna, die Siedlung in Tuwana.

Was die Lage von Atuna betrifft, sind die assyrischen Quellen aus den oben genannten Gründen leider nicht aussagekräftig. Alles, was man folgern kann, ist, dass Atuna in der Nähe, genauer gesagt in der Nachbarschaft von Šinuhtu liegen musste, weil es nicht wahrscheinlich ist, dass Sargon II. dem Kurti von Atuna eine von ihm weit entfernte, nicht benachbarte Region gegeben hätte (mit Bryce 2012: 145).[11] Eine Gleichsetzung des Kurtis von Atuna mit Kurti von BOHÇA, die in der Literatur allgemein vertreten wird,[12] ist zwar möglich, kann aber zurzeit nicht bewiesen werden. Diese Identifizierung würde aber in geographischer Hinsicht zumindest diesem Teil der Auflistungen von Tiglatpileser III. Sinn verleihen und passt zu der Identifizierung von

[10] Melchert (demnächst) nimmt aber an, dass ein solcher Schwund im Falle der Fremdwörter vollzogen worden ist – dies könnte die Schwankung Atuna/Tun(n)a erklären, wenn das Toponym fremder Herkunft ist. Einerseits gibt es aber für die fremde Herkunft von Atuna/Tun(n)a keinen Hinweis (und Grund), und wenn es tatsächlich so wäre, hätte es schon seit langem luwisiert worden sein müssen. Andererseits ist die Annahme von Melchert nicht nur sprachwissenschaftlich verdächtig (phonologische Regeln wissen ja nicht, welche Wörter ererbt und welche entlehnt sind), sondern auch ihre Beispiele sind falsch: im Falle der hethitischen Lehnwörter aus dem Hurritischen (^{NINDA}(*a*)*lattari*- ‚Gebäcksorte'; ^{GAD}*alalu*- ‚ein Tuch') stammen die Nebenformen ohne /a/ entgegen Melchert nicht aus einem luwischen, sondern aus einem (hethitisch-)hurritischen Kontext (für *lattari*- (vgl. HW^2 s.v.) s. KBo 5.1 (nebst *alattari*-!, CTH 476 Ritual von Pāpanikri); KBo 15.37 (CTH 628, (*h*)*išuwa*-Fest) und KUB 25.50 (CTH 705, Liste hurritischer Gottheiten); für *lalu*- s. Trémouille 1996: 92-94); für Hiyawa und Tawagalawa s. Simon 2011b: 259-260 mit Lit. (bes. Gander 2010: 50-54); die Lesung von *416 und *172 als <ala> und <ali> beruht auf synchronen Beweisen (Rieken/Yakubovich 2010: 200-201), die mit etymologischen Spekulationen ohne Beweise („none of the personal names [mit diesen Zeichen in Anlaut – Zs. S.] is assuredly Luwian and most clearly are not" – s. dagegen Aliziti) nicht widerlegt werden kann.

[11] Melville 2010: 100 nimmt dagegen an, dass die beiden Regionen nicht benachbart waren und Sargon II. konnte mit diesen Tuwanuwa in die Zange nehmen. Obwohl diese Lösung aus der Sicht von Sargon II. in der Tat praktisch gewesen wäre, ist es fraglich, ob ein Kleinkönig wie Kurtis in der Lage war, unbenachbarte Regionen effektiv zu kontrollieren. Selbst wenn diese Auffassung von Melville korrekt ist, ändert sie nichts daran, dass Atuna/Tuna nicht mit Dunna/Tynna/Zeyve Höyük identisch sein kann, weil Zeyve Höyük innerhalb von Tuwana liegt – Nach Melvilles Lokalisierung liegt also Atuna/Tuna von Bohça nicht besonders weit entfernt.

[12] Fuchs 2000 („possibly"), 2007a, 2007b; Vassileva 2008: 166; Giusfredi 2010: 61; Weeden 2010: 41; Bryce 2012: 145-147; Jasink 1995: 145 („appare difficile non collegare"); Payne 2012: 96 („quite possibly"), vorsichtig Morpurgo-Davies/Hawkins 1979: 389-390 und Hawkins 1979: 166 (nur eine Möglichkeit: sein Einwand, dass dies mit der Lokalisierung von Atuna auf Zeyve Höyük nicht zu vereinbaren ist, ist aber gerade widerlegt worden), 2000: 429 (mit Fragezeichen), 431 („very possible"), 478 („possible") und Marek 2010: 802 („eventuell").

Atuna mit Adunuwa (s. oben).[13] Auch die allgemeine Lokalisierung von Šinuhtu um Aksaray aufgrund der Namensgleichung der Könige (Kiakki von Šinuhtu und Kiyakiyas der AKSARAY-Inschrift) ist damit zumindest kompatibel.[14] Dieser war keineswegs ein seltener Name: s. noch Kiyakis (KULULU-Bleistreifen 1 §7.38) und Kikki von Tabal, erwähnt 836 von Salmanassar III. Aro 1998: 82-83 und Hawkins 2000: 431 argumentieren gegen die Gleichsetzung mit diesem Kikki mit dem inhaltlichen Parallelismus zu der SULTANHAN-Inschrift (aus der Zeit von Wasusarmas) und mit der Form der Skulptur, insbesondere die der Fußbekleidung des Wettergottes. Die Ähnlichkeiten mit SULTANHAN beschränken sich aber nur auf etliche Topoi (vgl. Simon 2011a: 233-238). Überzeugender ist aber die Argumentation von Giusfredi 2010: 80-81, der anhand von AKSARAY §6 (vgl. noch TOPADA §4) darauf schließt, dass der Tarwanis und König Kiyakiyas ein einem tabalischen Großkönig untergeordneter Herrscher war (nicht wie Kikki, der der großköniglichen Linie angehörte). Die Umstände, dass der Name Kurtis < Kurtiyas zu jener Zeit und in jener Region weit verbreitet war[15] und dass der Name des Vorläufers von Kurti von Atuna (U/Ašhit(t)i) nicht zu dem Namen des Vaters von Kurtis von BOHÇA (Asahwi(si)s) passt (mit Fragezeichen bei Bryce 2012: 307; obwohl sie nicht notwendigerweise dieselbe Person darstellen, da Asahwi(si)s z.B. ein Herrscher zwischen U/Ašhit(t)i und Kurti oder gar kein Herrscher sein könnte; vgl. noch Aro 1998: 104 Anm. 623, Marek 2010: 802), mahnen doch dazu, die Gleichsetzung des Kurtis von Atuna mit Kurti von BOHÇA mit Vorsicht anzunehmen.

Auch wenn die genaue Lokalisierung von Atuna noch nicht als endgültig gelöst gelten kann, ist zumindest ihre Trennung von Dunna / Tynna wegen der oben genannten Gründen klar. Diese Trennung betrifft aber nicht die Lokalisierung von Dunna / Tynna auf Zeyve Höyük, die gesichert ist.

Übrig bleibt noch die Lokalisierung von Tuna des KULULU-Bleistreifens. Abgesehen von der Identifizierung von Obertuna und Untertuna, deren Bedeutung unklar

[13] Jasink 1995: 144 Anm. 69 ist natürlich gegen diese Identifizierung, weil der hethitische Vorläufer von (A)tuna/Tynna bei ihrer Lokalisierung automatisch Dunna ist.

[14] Kalaç 1978: 124; Morpurgo-Davies/Hawkins 1979: 390; Hawkins 1979: 165; Hawkins 1995b: 99, 2000: 427, 431; Bryce 2012: 146, 148; Jasink 1995: 145, 151; Aro 1998: 82, 102-103 (vgl. aber ihre kritischen Bemerkungen); Bagg 2007: 240-241 („wahrscheinlich"); Fuchs 2007a, 2007b; Giusfredi 2010: 61 („probably"). Gewiss falsch ist die Lokalisierung in Niğde (Nahitiya, heth. Nahita) von Parpola/Porter 2001: Karte 1 & 2 (einer persönlichen Mitteilung von G. B. Lanfranchi folgend), das zu jener Zeit zu dem Königreich von Tuwana gehörte.

[15] Neben den oben genannten kennt man noch Gurdî, König von Til-garimmu c. 695 (vgl. Hawkins 2000: 285 mit Lit., zu dem Besieger von Sargon II. im Jahre 705 s. die ausführliche Darstellung von Aro 1998: 140-144; Hawkins 2000: 428 mit Lit.; für weitere Gurdîs in assyrischer Überlieferung s. Aro-Valjus 1999), einen Mann namens Kurtiyas aus dem KULULU-Bleistreifen (1 §4.17), vielleicht einen Kurtis in HİSARCIK 1 §5 (vgl. Hawkins 2000: 485), viele Gordios aus der phrygischen Dynastie(n) und noch weitere kappadokische Persönlichkeiten (Willrich 1912). Die Annahme eines Kurtis in HİSARCIK 2 §2 (Jasink 1995: 146, 149-150) kann nicht gerechtfertigt werden (Hawkins 2000: 496-497). Der Vorschlag von Vassileva 2008: 166, in Kurtis des KULULU-Bleistreifens den Herrscher von Atuna zu sehen, ist kaum wahrscheinlich, weil es sich einerseits um eine Liste von Tributzahlern / Güterrezipienten handelt, worauf ein Herrscher nicht zu erwarten ist (und deren Anzahl [mehr als 60] fast dreimal so hoch wie die der Kleinkönige in Tabal [24 laut Salmanassar III.] ist, weshalb diese Einträgen gewiss nicht die Kleinkönige darstellen), und weil dieser Kurtis andererseits aus Untertuna stammt, die von Atuna/Tuna zu trennen ist, wie oben.

ist (Ober- und Unterstadt der gleichen Siedlung, oder zwei verschiedene Städte?[16]), nimmt eine Gruppe der Forscher mehr oder weniger vorsichtig an, dass Tuna mit Kululu zu identifizieren ist.[17] Dagegen identifizieren Jasink 1995: 146-147 (vorsichtig) und Lebrun 2007: 463 Tuna mit Dunna/Tynna/(A)tuna (beide ohne Besprechung), was Giusfredi 2010: 197 ohne Argumente als „very doubtful" beschreibt (wegen des ungeklärten Zusammenhangs zwischen Ober-/Unter-/Tuna steht diesem auch Aro 1998: 111 skeptisch gegenüber).[18]

Der KULULU-Bleistreifen 1 stellt einen ökonomischen Inventartext dar, der die noch bevorstehende Übergabe von Gütern registriert. Es handelt sich entweder um eine Redistribution (wenn man das Wort CUM-*ni* der Bleistreifen mit Hawkins 2000: 503-509 als ‚for' übersetzt) oder um einen Tribut (wenn CUM-*ni* als ‚from, by' zu verstehen ist) und eine Redistribution (mit Giusfredi 2010: 195-196, für eine m. E. überzeugende Kritik dieser Ansicht s. Yakubovich 2011: 264). Es steht kein Hinweis dafür zur Verfügung, dass das registrierende Zentrum eine der in den Texten erwähnten mehr als ein Dutzend Siedlungen, darunter Tuna, der Rezipienten (und Tributzahler, in Giusfredis Ansicht) wäre. Da die KULULU-Bleistreifen und -fragmente in Kululu gefunden wurden, ist es logisch, anzunehmen, dass dieses Registrationszentrum in Kululu lag und dann Tuna dementsprechend nicht mit Kululu identisch sein kann. Wie Aro 1998: 111 beobachtet hat, nicht alle Personen sind durch eine Herkunft bestimmt und sie erklärt dies vorsichtig dadurch, dass nur diejenigen, die nicht aus dem Registrationszentrum waren, noch definiert werden mussten.

Wo aber lag dann Tuna? Wenn man in Betracht zieht, dass Tuna Dunna/Tynna sprachwissenschaftlich vollkommen entspricht (das hieroglyphische Schriftsystem bezeichnet die Geminaten bekanntlich nicht), ist es offensichtlich, Tuna mit Dunna/Tynna/Zeyve Höyük zu identifizieren (dessen luwischer Name bisher nicht bekannt war).[19] Auch das Prinzip der Ökonomie spricht dagegen, zwei verschiedene Siedlungen mit gleichem Namen anzunehmen, solange man hierzu nicht gezwungen ist.

Man kann aber den Einwand erheben, dass Tuna sich dann in dem Königtum von Tuwana befinden würde, nicht in dem Königtum der Großkönige von Tabal, wo Kululu lag. Es wäre auch überraschend, dass die Bevölkerung eines Königtums von einem anderen Königtum Güter bekommt (bzw. ggf. einem anderen Königtum Tribut bezahlt). Es ist aber kein Problem, wenn man daran denkt, dass, obwohl die innere Struktur von Tabal noch nicht geklärt ist (und einer eigenen Untersuchung bedarf), viele lokale

[16] Vgl. Morpurgo-Davies/Hawkins 1979: 390; Aro 1998: 110-111; Hawkins 2000: 431; Lebrun 2007: 464; Giusfredi 2010: 187, 196-197.

[17] Morpurgo-Davies/Hawkins 1979: 390 („an immediate, though possibly unjustified, assumption"); Forlanini 1988: 138 Anm. 44 („certamente identica"); Starke 1999: Sp. 528; Hawkins 1995c: 99, 2000: 431-432, weil er annimmt, die Bleistreifen wurden in Tuna geschrieben; Weeden 2010: 44; dagegen Aro 1998: 111, vgl. unten.

[18] Die von Meriggi/Poetto 1982: 102 vorgeschlagene und auch von Jasink als Alternative erwogene Identifizierung mit klass. Tonosa (heute Tonus), unweit von Kululu ist kaum wahrscheinlich, weil dann die Schriftform *tu-na-sa* nur den reinen Stamm zeigen würde, obwohl die vielen Stadtnamen in den KULULU-Bleistreifen immer mit Endungen erscheinen.

[19] Wie gesagt, Atuna kann keineswegs mit Tuna identisch sein, weil das anlautende /a/ im Luwischen nicht geschwunden ist.

Herrscher den Großkönigen (unabhängig der vieldiskutierten Herkunft und Realität dieses Titels, was hier nicht erörtert werden kann) unterstellt waren: man denke an den schon oben zitierten Tarwanis, Ruwas (KULULU 4, den Diener des Großkönigs Tuwatis) und an den auch schon zitierten König Kiyakiyas (zur Zeit von Wasusarmas). Obwohl eine solche Beziehung zwischen den Königen von Tuwana und den Großkönigen von Tabal explizit noch nicht belegt ist, muss man unter diesen Umständen die TOPADA-Inschrift von Wasusarmas zitieren, in der (§4) er unter den Mitgliedern seiner Koalition Warpalawas, Kiyakiyas und einen sonst unbekannten Ruwatas nennt. Da die Inschrift von dem Großkönig Wasusarmas und nicht von den anderen teilnehmenden Königen aufgestellt worden ist und diese anderen Könige zumindest nominal von kleinerem Rang waren, ergibt sich die Folgerung, dass diese Koalition aus dem Großkönig und seinen Vasallkönigen bestand.[20] In ein solches Bild passt die Identifizierung von Tuna mit Zeyve Höyük und dadurch die Annahme der Oberherrschaft der Großkönige über Tuwana sehr gut.

3. DIE CHRONOLOGIE DER HERRSCHER VON TUWANA

Wenn also Atuna und die Könige von Atuna wirklich um Bohça zu lokalisieren sind (aber keinesfalls in Tuwana), bleibt Masaurhisas wiederum ohne Königreich. Die Lösung ist m. E. einfach: aus der Umgebung von Zeyve Höyük kamen relativ viele Inschriften zutage, die ausnahmslos zu einer bestimmten Region gehörten: Tuwana. Zeyve Höyük liegt praktisch in der Mitte dieses durch diese Inschriften bestimmten Gebiets, weshalb das Logischste ist, anzunehmen, dass auch die Inschrift von Porsuk zu diesem Königreich gehörte. Dementsprechend und aufgrund der Tatsache, dass er den Rang eines Königs innehatte (genau wie die bisher bekannten Herrscher von Tuwana), war auch Masaurhisas ein König von Tuwana. Aus Tuwana sind allerdings bereits einige Herrscher bekannt, weshalb sich die Frage ergibt, wie man Masaurhisas in diese Herrscherliste, bzw. Chronologie einfügen kann.

Die Inschriften aus Tuwana erwähnen drei Herrscher und zwar in der folgenden Verteilung:

1) BOR und İVRİZ 2 erwähnen Warpalawas (König, Tarwanis, Held), den Sohn von Muwaharanis;

2) NİĞDE 2 erwähnt Muwaharanis (König, Held), den Sohn von Warpalawas (Tarwanis, Held);

3) İVRİZ 1 und BULGARMADEN erwähnen nur Warpalawas (Held, bzw. König, Tarwanis, Held).[21]

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[20] Wie Weeden 2010: 43 Anm. 32 weist zu Recht darauf hin, dass aus der Formulierung des Textes (*wa*/*i-mu tara*/*i-zi*/*a* REX-*ti-zi*/*a* CUM-*ni wa*/*i*$_6$-*sa*$_7$-*ta*$_x$ ‚drei Könige waren mir freundlich') noch nicht zwingend folgt, dass diese Könige die Vasallen von Wasusarmas waren (entgegen Woudhuizen 2007: 23; für eine alternative Lesung und Übersetzung von tara/i-zi/a ‚drei' s. Weeden 2010: 49-50). Weippert 1973: 49 hat dagegen die Annahme von Vasallität von Warpalawas sehr vorsichtig formuliert („vielleicht"), was Weeden a.a.O. außer Acht gelassen hat.

[21] Sehr fraglich ist, ob „[...] (Figur) *wa*/*i*+*ra*/*i-pa-la-wa*/*i-ha*[...]" in ANDAVAL §3 mit diesem/diesen Warpalawas zusammenhängt, wenn es überhaupt ein Name ist (Berges/Nollé 2000: 106: „möglicherweise"; Mora/Balatti 2012: 530

4) NİĞDE 1 und ANDAVAL erwähnen Saruwanis (Tarwanis in ANDAVAL).

Wie schon Hawkins (2000: 430 Anm. 63) erkannte, führen diese Angaben zu zwei möglichen Genealogien:

A) Warpalawas > Muwaharanis > Warpalawas

B) Muwaharanis > Warpalawas > Muwaharanis

Hawkins zufolge sind die Inschriften und Skulpturen von Warpalawas so einheitlich, dass es sich nur um einen Warpalawas handeln kann und demnach müsste Saruwanis vor Muwaharanis I. datiert werden (Genealogie B).[22] Während die Skulpturen von Warpalawas (Bor, İvriz 1-2) stilistisch gesehen wirklich einheitlich sind (denen die Stele von Muwaharanis aus Niğde gegenübersteht), ist es bei seinen Inschriften nicht so eindeutig: İVRİZ 1 ist eigentlich nur eine Etikette mit Segenswunsch und Kolophon, BOR ist eine sehr fragmentierte Weingartenbauinschrift und schließlich ist der Inhalt von İVRİZ 2 nicht völlig klar, soweit er nach den vorläufigen Berichten (Dinçol 1994: 124; Hawkins 2000: 526; Poetto 2002) ausgewertet werden kann. Problematischer ist aber, dass eine solche Einheitlichkeit noch nicht ausschließt, dass es sich um die Werke von Großvater und Enkel handelt (Genealogie A), weil die stilistische Abweichung der Stele von Muwaharanis verdeutlicht, dass diese Werke nicht zu dem Großvater und dem Enkel gehörten. Leider schließen diese Überlegungen die Genealogie A noch nicht aus, weil die Möglichkeit trotzdem besteht, dass diese Denkmäler entweder dem Großvater oder dem Enkel zuzuschreiben sind.

An dieser Stelle sei Saruwanis noch eine Bemerkung gewidmet: da Saruwanis bisher nicht als König (beobachtet auch von Balatti 2012: 151), sondern nur als Tarwanis bekannt ist, muss man ihn einstweilen aus der Herrscherliste von Tuwana entfernen (trotz der allgemeinen Auffassung, vgl. noch Jasink 1995: 137-138; Bryce 2012: 149, 307), weil man nicht ausschließen kann, dass er nur ein einem König von Tuwana unterstellter, lokaler Gouverneur, wie Tarhunazas von Bulgarmaden, war (vgl. oben, zu dem angeblichen Warpalawas in einer seiner Inschriften s. oben). Auch Balatti 2012: 151-152 charakterisiert ihn anhand seiner Titel (Tarwanis, Warpasis) nur als einen lokalen Herrscher, vermutlich einen Stadtherren (wobei ihre These allerdings von der Interpretation der jeweiligen heftig diskutierten Titel abhängt).

Mora und Balatti 2012 (vorsichtig gefolgt von d'Alfonso 2012a: 95) unterstützen dagegen vor allem anhand von NİGDE 2 die Genealogie A (wobei Urpallâ der neuassyrischen Quellen mit Warpalawas II. zu identifizieren sei), weil die Flügelsonne von NİGDE 2 eine Eigenschaft der früheren Denkmäler ist, die Paläographie von NİGDE 2 archaischer scheint (fast vollkommener Mangel an Worttrennerzeichen; ikonische

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mit Fragezeichen): Meriggi 1975: 13 sieht darin ein Verb (vgl. *warpalauwanzi* (IBoT 3.121, 2), s. dazu Kloekhorst 2008: 966-967). Balatti 2012: 150, 156 hält es vorsichtig für eine Person und identifiziert sie mit „Warpalawas I.", für den s. unten. Bryce 2012: 149, 307 hält es ohne Zweifel für eine Person, datiert sie vor Saruwanis und spekuliert, ob sie ein Vater von Saruwanis oder nur ein entfernteres Mitglied der königlichen Familie war. – Laut den Presseberichten erwähnt auch eine in November 2012 gefundene Stele aus Bor einen Warpalawas.

[22] Marek 2010: 802 (jedoch immer mit „Muwaharami"), Radner 2011 und Bryce 2012: 149-152, 307 schließen sich dieser Genealogie an, ohne die Alternative zu erwähnen.

Zeichenformen), eine solche frühere Datierung die frühe Erwähnung von Warpalawas in ANDAVAL erklärt und ansonsten nur KARATEPE ein späteres Denkmal wäre (Mora – Balatti 2012: 534-537).

Leider sind diese Argumente nicht einwandfrei. Nicht nur KARATEPE darf ein spätes Denkmal sein, es gibt keine *theoretischen* Einschränkungen, die ausschließen würden, ein tabalisches luwisches Denkmal in das 7. Jh. zu datieren, in dem der letzte bisher bekannte König von Tabal und Melid, [...]ussi, c. 640 erwähnt wird (ITT 138-145).[23] Für „Warpalawas" von Andaval s. schon oben. Die Flügelsonne ist von dem von den Autoren zitierten TELL AHMAR 2 aus dem frühen 9. Jh. bis in die Zeit der Dynastie der Könige von Tuwana kontinuierlich belegt (vgl. KÖRKÜN [spätes 9. Jh.] (Hawkins 2000: 172), Karatepe NKl 7 = A/7 und Domuztepe 6 (Çambel – Özyar 2003: 92-93, 155-156, zur Datierung s. 141-144)).[24] Was die Paläographie betrifft: Der Mangel an Worttrennern und die ikonischen Zeichen sind leider als Archaismen nicht entscheidend, weil sie auch archaisierend sein können. Zu der Form des <wa/i>-Zeichens s. unten.

Es kommt erschwerend hinzu, dass die bisherige Forschung nicht alle Möglichkeiten für die absolute Datierung in Betracht gezogen hat. Urpallâ kann nämlich theoretisch nicht nur mit Warpalawas (Genealogie B) oder Warpalawas II. (Genealogie A), sondern auch mit Warpalawas I. identifiziert werden (Genealogie C). Man muss also Masaurhisas auf irgendeine Weise in die folgenden Herrscherlisten einfügen:

	Genealogie A	*Genealogie B*	*Genealogie C*
	Warpalawas I.		
	Muwaharanis	Muwaharanis I.	
Urpallâ (-738-709-)	Warpalawas II.	Warpalawas	Warpalawas I.
		Muwaharanis II.	Muwaharanis
			Warpalawas II.

Vor der Diskussion der möglichen Lösungen ist noch auf die folgenden Umstände hinzuweisen:

Erstens, diese Listen können durch die vorgeschlagene Identifizierung von Muwaharanis mit Mugallu, König von Tabal und Melid (Hawkins – Postgate 1988: 38; Lanfranchi 1990: 68; Jasink 1995: 142) nicht fixiert werden (auch Aro 1998: 153-154 ist aus chronologischen Gründen dagegen). Obwohl dieser Vorschlag auf den ersten Blick plausibel erscheint (die Kontraktion *-uwa-* > *-u-* ist regelmäßig, °*harani-* konnte wegen des intervokalischen /l/, /n/, /r/ betreffenden luwischen Rhotazismus ohne Weiteres als *°*halali-* und dann mit Haplologie der gleichen Silben als *Muhalli gehört werden), wird

[23] Es muss schon deshalb betont werden, weil z. B. Bryce mehrmals behauptet, dass der assyrische Anschluss der späthethitischen Fürstentümer das Ende der späthethitischen Geschichte bedeutet (2012: 287, 290, 293), was offensichtlich falsch ist und von seiner eigenen unberechtigt knappen Besprechung der nachsargonischen Periode (2012: 292-294) sofort in Zweifel gezogen wird. Ähnlich unbegründet ist die Feststellung von Collins 2007: 205, die Hethiter seien mit der assyrischen Eroberung von Karkamiš (717) aus der Geschichte verschwunden (und gleichfalls s. 2007: 85 für eine noch knappere Besprechung der nachsargonischen Zeit).

[24] Anhand der Pressefotos scheint auch die im November 2012 gefundene Warpalawas-Stele die Spuren einer Flügelsonne zu zeigen.

das intervokalische luwische <h> im Neuassyrischen immer mit <h> und nie mit <g> wiedergegeben (entgegen Jasink 1995: 142 Anm. 62, ausführlich s. Simon demnächst), weshalb eine Identifizierung von Muwaharanis mit Mugallu aus sprachwissenschaftlicher Sicht nicht möglich ist.

Zweitens, obwohl man annehmen könnte, dass die Anwesenheit einer phönizischen Inschrift in İVRİZ 2 in Anbetracht der datierbaren phönizischen Inschriften, bzw. Bilinguen aus Hiyawa aus chronologischer Sicht hilfreich sein könnte, ist dies leider wegen der vielen Problemen um die *genaue* Datierung dieser phönizischen Inschriften (vor allem KARATEPE und ÇİNEKÖY) nicht der Fall.

Des Weiteren nehme ich Folgendes an, das zurzeit zwar nicht strikt bewiesen werden kann, aber dem Prinzip *entia non sunt multiplicanda praeter necessitatem* entspricht:

1) Wegen Mangels an Gegenbeweisen wird angenommen, dass die assyrischen Quellen (einerseits zwischen 738 und 732,[25] andererseits um 709) auf einen und denselben Warpalawas hinweisen, also nicht z.B. auf den Großvater und Enkel, wie in Genealogie A und C. S. aber unten auch für unabhängige Argumente gegen diese Genealogien.

2) Keine weiteren Könige sind in die Liste dieser drei Könige einzuschieben. Obwohl man theoretisch nicht ausschließen kann, dass auch der Bruder / die Brüder oder ein andere(r) Verwandte(r) des zweiten, bzw. dritten Herrscher regiert hat/haben, lassen die eindeutigen genealogischen Angaben und die assyrischen Quellen nicht genug Platz für einen / mehrere Herrscher.

Es ist klar, dass man bei dieser Quellenlage keine endgültige Herrscherliste, sondern nur die Wahrscheinlichkeit dieser Herrscherlisten bestimmen kann. Die Möglichkeiten kann man mit den folgenden Beobachtungen einschränken:

Erstens, der *terminus ante quem* für Könige von Tuwana liegt 675, als Iškallû, König von Tabal erwähnt wird (für Belege s. Pruzsinszky 2000): Es ist nämlich auffallend, dass die Quellen in der nachsargonischen Zeit nicht mehr von lokalen Königen berichten, sondern nur noch über Könige von Tabal, sogar Mugallu (-675-651-) scheint später Tabal und Melid vereint zu haben und damit ein relativ großes Königtum geschaffen zu haben.[26] Dementsprechend kann man annehmen, dass die Kleinkönigtümer in der nachsargonischen Periode nicht mehr existierten. Dies macht den Einschub von Masaurhisas nach Warpalawas II. (Genealogie C), weniger wahrscheinlich (denn dann würden weniger als dreißig Jahre für drei Herrschen zur Verfügung stehen). Die Möglichkeit von Genealogie B mit Masaurhisas nach Muwaharanis II. lässt sich aber dadurch noch nicht ausschließen.

Zweitens, der eindeutig assyrische Stil des Wettergottes der Stele von Muwaharanis (Aro 2003: 319-320, vgl. schon 1998: 195; Boehmer 1983: 78-79), gegenüber des Stils des Wettergottes der beiden Inschriften aus İvriz von Warpalawas lässt sich besser während,

[25] Für Kritik an die Datierung von SAA 11.30 zwischen 743 und 738 (Hawkins/Postgate 1988: 39) s. Aro 1998: 85-87.

[26] Hawkins 1982: 432, 1995b: 406, 2000: 428; Fuchs 2001, 2007c; Melville 2010: 103 Anm. 66; d'Alfonso 2012b: 183; vgl. die ausführliche Besprechung von Aro 1998: 149-151 mit Lit.

bzw. nach der Periode der assyrischen Provinz in Tabal (seit 713) erklären, da einzelne Feldzüge für Einflüsse in der Kunst kaum genug sind (vgl. auch Boehmer 1983: 78-79; Balatti 2012: 159-160; trotz der von Salmanassar III. errichteten Stele(n), für deren genaue Anzahl s. die Diskussion bei Yamada 2000: 286-287, die als Modell bedienen dürfte(n), s. Aro 1998: 190). Dies schließt die Genealogie A praktisch aus und plädiert für die Genealogien B und C (zur Genealogie C vgl. aber oben).

Drittens, die von Hawkins 2000: 528 als „spät" charakterisierte Paläographie von PORSUK weist eindeutig auf das 8. Jh. (Worttrenner praktisch vor allen Wörtern, die Formen der Zeichen <sa> und <sà> entsprechen denen von SULTANHAN und den KULULU-Bleistreifen, vgl. Giusfredi 2010: 284, Table 9), genauer gesagt auf das 8. und das 7. Jh. hin (zumindest bis c. 640), weil man die letztere Datierung trotz Hawkins 2000, der alle späten tabalischen Inschriften in das 8. Jh. datiert (vgl. auch Hawkins 1982: 429, 2008: 40), nicht ausschließen kann (vgl. Aro 1998: 93-94). Da eine ausführliche luwische Paläographie und darin eine tabalische Paläographie noch ein dringendes Forschungsdesiderat ist, kann man diese allgemeine Feststellung anhand der betreffenden paläographischen Vorarbeiten von Giusfredi 2010: 284 (Table 9), Balatti 2012: 154-156 (mit Table 1), Mora – Balatti 2012: 534-537 und d'Alfonso 2012a nur beschränkt und vorläufig präzisieren. Aus den von ihnen analysierten Zeichen der tuwanaischen Inschriften befinden sich *19 <á>, * 45 (INFANS), *107 <mu>, *329 <REL>, *390 <DOMINUS>, *433 <sá>, *439 <wa/i> und *450 <a> auch in Porsuk. <á> erscheint einmal in monumentaler, zweimal in kursiver Form. <INFANS> erscheint einmal in monumentaler Form wie in NİĞDE 2, und einmal stilisierter, aber mit den anderen nicht identisch. <mu> erscheint normalerweise in einer eigenen kursiven Form, der die von BOR und VELİİSA am nächsten stehen, und einmal nicht-kursiv, wie in NİĞDE 2. <REL> erscheint einmal in einer kursiven Form, die auch aus BOR bekannt ist. Die Form des Zeichens <DOMINUS> ist aus BULGARMADEN bekannt. Die zweimal belegte kursive Form des <sá> hat keine guten Parallelen. Der mittlere Strich in <wa/i> erscheint vertikal und gerade (wie in NİĞDE 1 und ANDAVAL), ohne den die Inschriften von Warpalawas kennzeichnenden Haken, bzw. ohne den schrägen Ablauf auf dem oberen Ende, den man in NİĞDE 2 und VELİİSA findet (zu dieser Klassifikation s. Balatti 2012: 156, Mora-Balatti 2012: 537, d'Alfonso 2012a: 91-96).[27] Das <a> hat seine nächsten, aber nicht identischen Parallelen in ANDAVAL und VELİİSA.

Wie bereits oben erwähnt, sind paläographische Archaismen für eine Datierung nicht geeignet. Man braucht paläographische Neuerungen für die Datierung, und wenn einem mehrere davon zur Verfügung stehen, ist die jüngste die Entscheidende. Obwohl PORSUK einige solche Neuerungen aufzuzeigen scheint (*45, *433, *450), verfügen diese Zeichen aber über keine guten Parallelen. In den übrigen Fällen bieten BOR, VELİİSA und BULGARMADEN Parallelen, unter denen BOR und BULGARMADEN in die Zeit von Warpalawas gehören (VELİİSA konnte noch nicht mit einem Herrscher zusammengeknüpft werden). Es muss betont werden, dass die Parallelen zu NİĞDE 2 und

[27] NİĞDE 1 erscheint in Mora-Balatti 2012: 536 auch mit dem schrägen Typ (so auch in der Zeichnung von Hawkins 2000: Plate 290) und in Meriggi 1967: 9 mit dem Haken. Nach meiner Kollation in dem Istanbuler Museum handelt es sich aber um ein vertikales Zeichen ohne schrägen Ablauf (so auch d'Alfonso 2012a: 93 Anm. 1; vgl. auch Abb. 801 in Bossert 1942).

der mittlere Strich von <wa/i> Archaismen und daher für eine Datierung nicht geeignet sind. Balatti 2012: 156 und Mora-Balatti 2012: 537 rekonstruieren die Entwicklung des Zeichens als einfach vertikal > mit schrägem Ablauf > mit Haken. Damit wären NİĞDE 2 und VELİİSA früher als die Inschriften von Warpalawas. Dieser Vorschlag steht aber nicht nur konträr zu dem Stil des Wettergottes von Niğde 2, der erst nach Warpalawas datiert werden kann (s. oben), sondern lässt auch die theoretische Möglichkeit einer anderen Entwicklung außer Acht: einfach vertikal > mit Haken > mit schrägem Ablauf (als kursivierte Form des Hakens). Damit wären NİĞDE 2 und VELİİSA nach Warpalawas zu datieren, was auch ikonographisch passt, weshalb diese Lösung m. E. zu bevorzugen ist. Nach dieser Analyse wäre aber PORSUK in beiden Fällen nach Warpalawas zu datieren, entweder unmittelbar (wenn man der These der italienischen Forscher folgt), d.h. zwischen Warpalawas und Muwaharanis von Niğde oder nach Muwaharanis von Niğde (wenn man der hier vorgeschlagenen Alternative folgt).[28]

Zusammenfassend lässt sich also feststellen: die paläographische Analyse ergibt auf jeden Fall, dass sich Masaurhisas nicht vor die oben angegebenen Genealogien datieren lässt. Durch diesen und den oben erwähnten chronologischen Umstand ist die Genealogie C auszuschließen. Die Genealogie A ist auch aus ikonographischer Sicht sehr problematisch. Die übrig bleibende Genealogie B passt sowohl zu der Ikonographie als auch zu der Paläographie und Masaurhisas kann nach der paläographischen Analyse nach Muwaharanis II. datiert werden. Damit verbessert sich die dürftige Quellenlage des 7. Jh. und es wird noch einmal darauf aufmerksam gemacht, dass die späthethitische Geschichte nicht mit der assyrischen Eroberung abschließt. Ob man in Masaurhisas den letzten König von Tuwana sehen kann (vgl. oben die chronologische Einschränkung), lässt sich noch nicht bestimmen, darf aber als wahrscheinlich gelten.

4. FAZIT

Die Ergebnisse der obigen Ausführungen können wie folgt zusammengefasst werden: (A)tuna muss von Dunna/Tynna/Zeyve Höyük getrennt werden und kann vermutlich in der Umgebung von Bohça lokalisiert werden. Die Siedlung Tuna des KULULU-Bleistreifens Nr. 1. kann mit Dunna/Tynna/Zeyve Höyük identifiziert werden und bietet einen neuen Beweis dafür, dass auch die Könige von Tuwana den Großkönigen von Tabal Untertan waren. Tabellarisch zusammengefasst:

hethitischer Name	Dunna	Adunuwa
luwischer Name	Tuna	bisher unbelegt
assyrische Umschrift	bisher unbelegt (vgl. aber das Tunni-Gebirge)	Atuna > Tun(n)a
griechische Umschrift	Tynna	bisher unbelegt
heute	Zeyve Höyük	weitere Umgebung von Bohça

[28] Auch die paläographische Neuerung der „gerundeten Vierecke“ der <wa/i>-Zeichen der PORSUK-Inschrift, die als kilikischer Einfluss erklärt werden kann (d’Alfonso 2012a: 96, vgl. auch oben), würde eine späte Datierung unterstützen. Es hängt aber von der heftig diskutierten Datierung von KARATEPE 1 und ÇİNEKÖY ab, die einer eigenen Untersuchung bedarf.

Außerdem war Masaurhisas, der König des Inschriftenherren von PORSUK (Zeyve Höyük), ein König von Tuwana und lässt sich nach Muwaharanis der NİĞDE 2 Inschrift datieren. Damit gehört PORSUK zu den spätesten hieroglyphen-luwischen Inschriften. Die zurzeit wahrscheinlichste Herrscherliste von Tuwana sieht demnach folgendermaßen aus:

1) Muwaharanis I.

2) Warpalawas / Urpallâ, -738-709- (BOR, İVRİZ 1-2, BULGARMADEN) (Sohn)

3) Muwaharanis II. (NİĞDE, vermutlich auch VELİİSA) (Sohn)

4) Masaurhisas (PORSUK)

5) vermutlich unter der Herrschaft von Iškallû, König von Tabal

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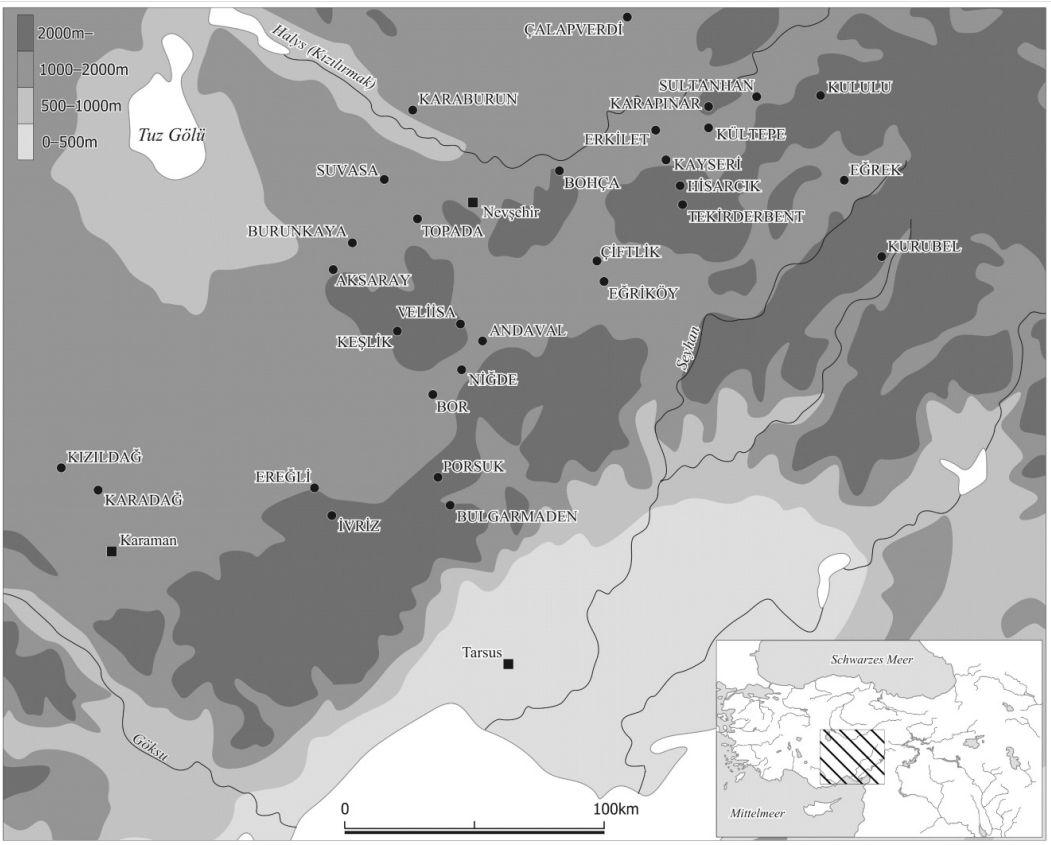

Abb. 1. Die geographischen Rahmen (nach Aro 1998: Plan 1b, neubearbeitet von S. Aro, hier abgedruckt mit ihrer freundlichen Genehmigung).